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This study reflects the attitudes of male Army officers concerning women in combat. A statistical analysis is presented of responses to selected demographic discriminators, various social role perceptions and subjective assessments of hypothetical performance situations concerning women in combat, the study examines the various relationships between contemporary and traditional mind-sets as they might influence future policy development.

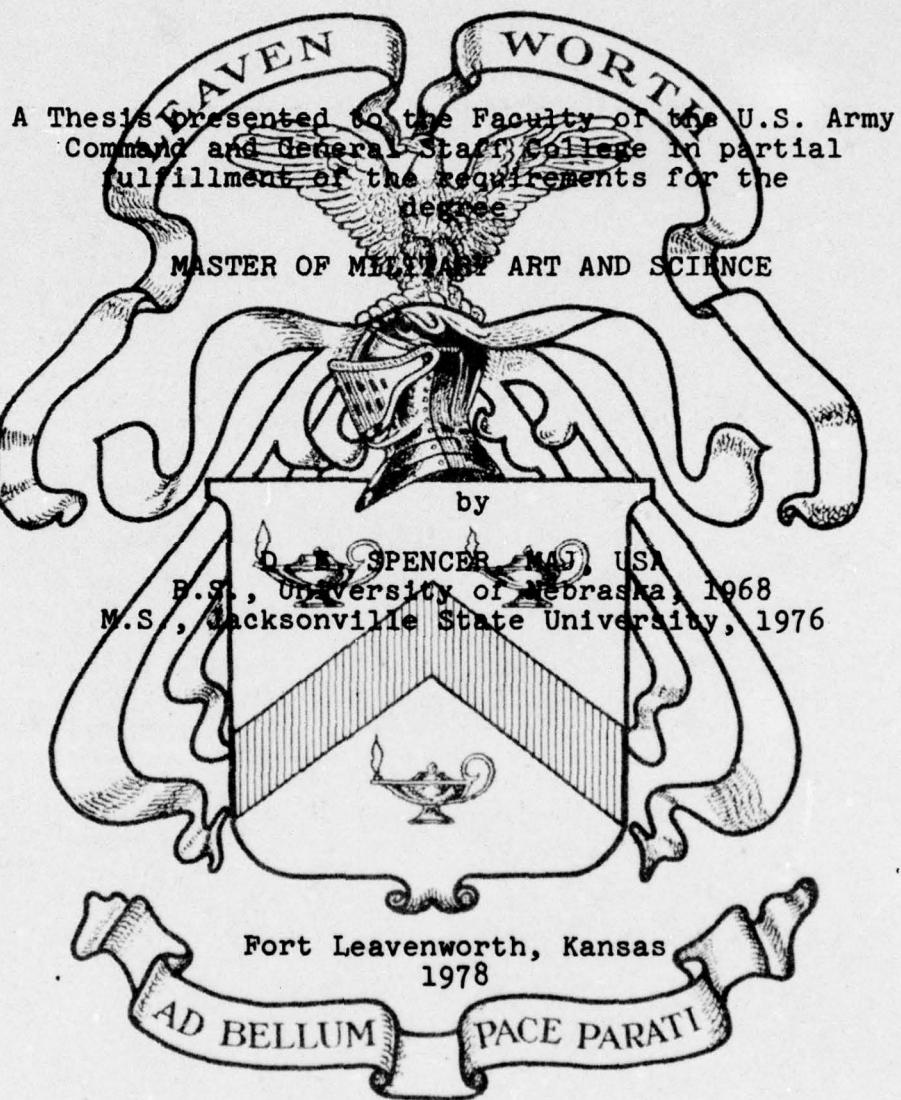
The findings show the importance of considering personal and situational factors when evaluating attitude variables correlated with status variables such as rank, seniority, or major military experience.

Further examination reveals that these are disparities between the way officers feel about women in general and women in combat. The dichotomy signifies issues that merit particular attention in relation to the Armies of the 1980s and 1990s.

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TOWARD THE ARMY OF THE 1980S: A STUDY OF MALE  
ATTITUDES TOWARD WOMEN AS COMBATANTS



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⑥ Toward the Army of the 1980s: A Study of Male Attitudes Toward Women as Combatants

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U. S. Army Command and General Staff College  
Fort Leavenworth, Kansas 66027

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THESIS APPROVAL PAGE

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Art and Science.

The opinions and conclusions expressed herein are those  
of the individual student author and do not necessarily  
represent the views of either the U.S. Army Command and  
General Staff College or any other governmental agency.  
(References to this study should include the foregoing  
statement.)

## ABSTRACT

↓ This study reflects attitudes of students of the CGSC Class of 1978 toward the issue of women in combat. A sample of the Class responded to 57 questions which included demographic discriminators, positive and negative social role perceptions and personal assessments on hypothetical performance situations concerning women as combatants. This study examines the various relationships between contemporary and traditional mind-sets since they may influence future policy development. The degree of dependence varies among the major variables of social beliefs, gender-role perceptions, mind-sets, and job appropriateness, in comparison to specific criterion items. This research is restricted to tests of the significance and strength of these interrelationships compared with their position along an attitude scale continuum. ↗

The sample generally expressed favorable, contemporary attitudes concerning egalitarian social beliefs without reservations; however, traditional beliefs were expressed in response to the controversial combat criterion questions. The findings provide evidence that the issues of readiness and women as combatants are strongly related to the major variable of role perceptions; fairly strongly related to mind-sets, and moderately related to job appropriateness. Social beliefs were not significantly related to any other major variable in this research. The strongest relationship shown in this research was between role perceptions and military readiness. The predictive validity of the hypotheses was enhanced by the results of these relationships. Generally, the preselected criterion questions revealed very low correlations between selected demographic variables and social beliefs as well as job appropriateness. The findings show the importance of considering personal and situational factors when evaluating attitude variables correlated with status variables (i.e., source of commission and major military experience) as well as role perceptions and mind-sets. Conclusions as well as implications for further research are presented.

TOWARD THE ARMY OF THE 1980s: A STUDY OF MALE ATTITUDES OF WOMEN AS COMBATANTS, by Major Dorothy E. Spencer, USA, 349 pages.

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#### DEDICATION

In honor of my parent's fortieth anniversary, I dedicate this entire research effort to them, Mr. and Mrs. Harrison J. Spencer. Their constant encouragement greatly assisted me in the pursuit of this research effort from initiation to final accomplishment.

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## CHAPTER I

### THE PROBLEM

#### STATEMENT OF THE PROBLEM

The purpose of this research is to identify and evaluate the existing attitudes among future Army decisionmakers toward women as combatants. Attitudes toward women in combat environments have become increasingly important as the number of women in the Army has increased. In the long run, these attitudes will be of importance in planning and formulating Army policy. For a number of reasons, including practical ones, it seems desirable in this context to give emphasis to the aspect of attitudes relating to "action" or possible future decisionmaking; since an attitude influences a choice of action on the part of the individual. An attitude can be considered as an internal state, inferred from self-report by questionnaire, of the individual's probable behavior. It is not behavior itself. It is the choice of a personal action (behavior), that is affected by an attitude. Attitude measurement, emphasizing choices of action, is described in the work of Triandis<sup>1</sup>, as those attitudes or complex states of

the human organism which affect one's behavior towards people, things, and events. Since attitudes expressed by both males and females on the issue of women as combatants have been charged with emotion, they could predispose decisions and reactions under combat conditions.

Concern resulting from the growing number of women in the military will be a critical factor in future decisions regarding the types of duties and whether or not women are permitted to serve as combatants. Human beings differ greatly in their abilities but not categorically along gender lines; that is to say, abilities are not determined by gender. Abilities are functions of persons, not of groups or classes. Hence, so far as abilities are concerned, both genders should be afforded an equal opportunity to realize their potentialities, and the judgment of their abilities should not be influenced by any bias regarding gender.<sup>2</sup> This, however, is not the aim of this study.

A number of American military and civilian leaders recently have considered a wider role for women in the military, to include combat. The primary reasons for this position are expanding social roles for women, the diminishing male resource and the fact that the All-Volunteer Force cannot be sustained without a substantial

increase in the numbers and types of occupational roles open to women. Although traditionally, women have served in the Army almost exclusively in nursing and other health-related professions or in administrative positions; today some 94% (or 323 of the Army's approximately 345 military occupational specialties) are open to enlisted women.<sup>3</sup> In many of these jobs, women function in work spaces and environments originally occupied by men and operate heavy equipment designed for use by men. Another factor favoring wider roles for women is the availability of educationally qualified females. It is significant to note that the Armed Forces have no trouble finding educationally qualified females.<sup>4</sup> In terms of cost effectiveness, women have a decided advantage over men in reducing training costs, by improved performance and productivity.<sup>5</sup>

Although women have been accepted in a growing number of non-traditional roles, combat duties remain closed. Women in the American Army have never been assigned as combatants or forward of the brigade rear area. Several approaches have been taken recently to determine whether women could be fully integrated into the military if they were trained to function in a combat environment. Recent in-depth studies on the topic

of women in combat have approached the subject psychologically, physiologically, sociologically, mythically, and historically.<sup>6</sup> The Department of the Army has projected that a number of on-going studies will be completed by mid-summer 1978, concerning major changes in the role of women within the military services. These studies investigate job appropriateness, size and strength of Army women, performance under field conditions, personal and organizational equipment design, attitudes of males and females toward expanded roles for women and numerous other aspects of women in a combat environment. Considering today's dynamic battlefield, it is acknowledged that all soldiers in a combat theater may be exposed to combat and may have to perform as actual combatants. The complexity of the problem of women as combatants is shown by the number and extent of studies and by the variations and the inconclusiveness of the findings reported by the individual investigators.

One aspect that has created a research gap is the attitudes of future decisionmakers of the next decade concerning women as combatants. This study will provide an important indicator of the potential for expanded utilization of women in the Army. It represents a critical factor in the Army's future role in

national defense in view of fertility patterns among the population as well as the higher mortality rate among males than among females throughout life. This research offers an historical perspective on women in combat and a contemporary opinion and attitude inventory of the Army's future executive-level decisionmakers concerning women in combat.

#### IMPORTANCE OF THE STUDY

The proportion of females compared to males in the military is rapidly increasing. The decision of whether to deploy women as combatants must be made before the diminishing male resource reaches the crisis stage. The composition of our force structure directly affects the quality, the quantity, and the type of human resources the military can recruit for our nation's defense. Findings from this study should assist in determining how amenable middle-career level officers would be to a radical departure from traditional, socially-accepted roles to more contemporary and more controversial roles. This study explores some prevailing attitudes concerning limitations of women based upon long-established customs. Since many of the officers surveyed will eventually hold influential positions in the Army,

their attitudes will influence critical decisions regarding the force structure and the role of women in that structure.

#### HYPOTHESES

This inquiry will seek to determine the degree to which there are patterns of attitudes held by male Army officers, concerning their perceptions of women in the military. Attitudes regarding those roles considered appropriate for military women are related to values concerning job appropriateness, opinions concerning expanded versus restricted roles, dispositions toward social beliefs and traditional versus contemporary viewpoints. This research will further explore to what extent those attitudes relate to the demographic variables or background characteristics of the male officers responding. This inquiry will function based on these hypotheses:

1. There is a significant difference between ideal, egalitarian social role perceptions for women in general and military role perceptions of women as combatants.

2. Attitudes regarding what are appropriate tasks for women in the military and society are related

to the social beliefs of the male, regular Army future decisionmakers.

#### SCOPE AND LIMITATIONS OF THE STUDY

No attempt is made in this study to predict the success of women as combatants. Likewise, this inquiry will not be concerned with other influences affecting the successful integration of women such as soldier morale, unit esprit de corps, training, promotion, pay or fringe benefits. It will address the relationships between traditional and contemporary beliefs concerning women as combatants. The questionnaire was designed to obtain the attitudes of male, Regular Army officer students of the United States Army Command and General Staff College, Class of 1978, concerning women in combat. All female student officers and male student officers from the Reserve Components, Sister Services, and Allied nations were excluded from the sample because their total number in the class was too small. The possibility of bias resulting from attempts by respondents to answer questions in ways which would win approval, as opposed to a manner reflecting their choices accurately, is beyond the scope of this study. It can be assumed that if such bias were present, then the problem is more serious

than the numbers would show. Many elaborate attitude studies have been conducted outside the military with this purpose in mind. Research conducted by Zimbardo and Ebbesen and other noteworthy attitude studies; for example, Cohen's analysis, Silverman's research and Eagly's studies indicate that high self-esteem subjects tend to avoid revealing information about their attitudes which could be considered socially undesirable.<sup>7</sup> Low self-esteem subjects tend to distort unfavorable information which they consider socially undesirable.<sup>8</sup>

#### DEFINITION OF TERMS

Generic and specific terms used throughout this study describe individuals, groups, concepts, and situations and may be construed as being used for purposes of this study. These terms are defined in the following context:

1. Achieved Role. Role attained or accomplished by exertion; skill or work which brings about a desired result by performance; (used interchangeably with "occupational role").
2. Affect. Affect defines the sample's feelings or emotional orientation toward the female. Basic affective responses include friendliness, hostility,

fear, rage, contempt, sympathy, disgust, affection, protection, respect and other emotional feelings. Generally, affect includes the emotional response or emotion attached to the idea of women in combat.

3. Ascribed Role. Implies assignment to someone of something that may reasonably be regarded as applicable; (used interchangeably with "gender role").

4. Attitude. Mental set in connection with one's manner of acting; thinking which shows one's disposition or opinion.

5. Attitude Stability. Attitude stability is a concept that takes into account the extremeness, intensity, and salience of an attitude.<sup>9</sup> By extremeness is meant the position of the belief at either end of the scale of beliefs. The intensity of an attitude indicates the strength of the feelings attached to the attitude. This strength or lack of it moving from its position of extremeness determines the probability of the attitude to determine behavior. An attitude is salient if it is close to the surface and can be called up by many and varied cues. (NOTE: Many investigators have studied, and emphasized in their writings, the concept of an attitude as a system of beliefs,<sup>10</sup> or as a state arising from a conflict or disparity in beliefs.<sup>11</sup>

These views serve to point out the cognitive aspects of attitudes. Other writers deals with the "affective" components, the feelings that give rise to or which accompany beliefs or behaviors, as in liking or disliking. Learning outcomes in the "affective domain" are described by Krathwohl, Bloom and Masia.<sup>12</sup>

6. Balance Theory. Balance theory is based on the proposition that a person demonstrates consistency among the cognitive, affective, and conative components of his attitudes.<sup>13</sup> Inconsistencies lead to tensions which are reduced by certain changes in the attitude structure that will bring about consistency. For example, if a male officer perceived the female to be ineffective, undisciplined, and a negative influence in a combat environment (cognitions) and, further, he harbored hostile feelings toward the female in combat (affect), his actions or tendencies toward the decision on behalf of the female's career aspirations would probably be negative and the professional distance between the two would be great (conations). If, however, the male officer is forced to act positively toward the female (conations), there is an abrupt change in one of the components and the attitude is put into a state of imbalance. The imbalance results when the cognitive and

affective components, (both negative), have not been affected by the forced action.

7. Cognitions. Included in the cognitive component of the male officer's attitude are the perceptions, impressions, knowledge, beliefs and expectations he holds toward the female in the broadest sense. These cognitions include negative stereotyped beliefs and opinions.

8. Conations. The conative component of the attitude reflects the manner in which the sample acts toward the female. These actions are expected to follow and be consistent with the cognitive and affective components of the attitude. The conations reflect the act or faculty of striving or making an effort and express the endeavor to undertake an egalitarian position on the matter of women in combat.

9. Contemporary Mind-Set. Opinions of, or in the style of, the present or recent times; up-to-date with modern trends and new ideas, concerning tasks of career-oriented women within egalitarian concepts.

10. Egalitarianism. Egalitarianism is the emotional attitude of the sample that his gender and role are not superior to that of the opposite gender. The egalitarian attitude advocates or is characterized

by the belief that all humans should have equal political, social, and economic rights.

11. Female Contemporary. The female contemporary is a female professional Army field grade officer who was also enrolled during 1977-78 as a student at the Command and General Staff College. She held a common status with the male professional officer and may be referred to as the female, the female officer, the woman officer, the women, or the female group.

12. Male Professional Officer. The male professional officer selected for the research sample was a promotable company grade or field grade Army officer enrolled during 1977-78 as a student at the Command and General Staff College. He may be referred to as the male officer, the male group, the decisionmaker of the future, the USACGSC student, or the sample.

13. Prejudice. Prejudice means a "prejudgment," that is, to believe something in advance of knowledge or relevant facts. With respect to prejudgment, no person can possibly obtain all facts about all people; therefore, he cannot logically judge all people to be one way or another. In the absence of total knowledge about all members of the male population, a male professional officer cannot logically make a valid blanket

judgment about all females based upon his knowledge of a few. Prejudice is used exclusively in this study as that aspect of attitude that places the object group at a disadvantage.

14. Sexist Attitude. Sexist attitude refers to an attitude held by the sample toward one, some, or all members of the female gender. Further, it denotes a tendency or a cluster of tendencies to react in various specific ways to a member or those members of the military of the female gender. Sexist attitude was conceptualized as a psychological process with cognitive, affective, and conative components.<sup>14</sup>

15. Stereotype. The term stereotype refers to the male officer's preconceived image of the female in traditional roles, regardless of the female's qualifications and individual characteristics. Stereotype refers to unvarying or conventional notions or conceptions, as of a female or group of females; ideas held by a number of people, and allowing for no individuality, critical judgment, or individual exceptions from fixed opinions.

16. Traditional Mind-Set. Definite opinions or decisions regarding women which were handed down orally as long-established practices or socially sanctioned customs that have the effect of an unwritten law or accepted belief.

## ASSUMPTIONS

This research assumed reader knowledge and understanding of the past and present existence of the restrictions on the utilization of women in the military. Only so much of the problem as is necessary to establish fundamental background material is discussed in Chapter II. No attempt was made to treat barriers in great detail other than those attitudes pertaining to women in combat in the U.S. Army.

To properly approach the subject, a series of additional assumptions were made. It can be shown quantitatively that the woman in the military has progressed in terms of professional equality a great deal faster than her civilian counterparts.<sup>15</sup> On the basis of data introduced in Chapter II, it was assumed that military women can continue to move upward on the professional ladder in the Army. Specifically, it was assumed that male and female professional military officers occupy a common status according to their corresponding ranks. The importance of this assumption that women do have equal status in the military must be examined in terms of whether or not women are allowed to occupy positions of equal status. The question of whether women are considered to be truly equal is valid

for theoretical argument. A female major who is a student at the Command and General Staff College, for example, is considered to have a bonafide position of equal standing within the group that consists of all majors who likewise are students at the same time. The only exception would be that of combat experience for most women.

In line with the "common-status" assumption was the proposition that change comes about in the military primarily through directives and orders from high positions even though often with a significant amount of struggle.<sup>16</sup> Therefore, it follows that the male soldier has no alternative but to follow the orders and laws that direct him to accord full equality and opportunity to the female in job assignments.

Directives from high levels are not sensitive to preferences of individual soldiers. It matters little to senior levels of the military management structure how a particular enlisted man or individual officer may feel about female equality. If it is directed that women are to be assigned equally, the subordinate is expected to comply. Compliance can be guaranteed by virtue of the chain of command system inherent in the military establishment whereby any infractions of orders

can be pinpointed to the individual offender. In view of the nature of these orders and controls, it was assumed that outward discrimination against women in the Army was prohibited chiefly as a result of external influences, namely, as executive orders, directives from the Pentagon and Congressional legislation.<sup>17</sup> This research makes no attempt to assume anti-egalitarian attitudes among male officers, rather it was designed to determine whether such attitudes do in fact exist among future decisionmakers.

Since expanded roles for women was assumed to be an issue brought about by the impetus of social change, it was assumed that there was no meaningful movement from within the military ranks to break with the tradition of limited roles for women. It is, therefore, reasonable to assume further that along with role restrictions based mainly upon tradition, came traditional attitudes. Which came first is a classic question which has never been answered. A specific military question then arises regarding how the recent commitment by the Army to provide viable careers for military women (which support the Army's worldwide capability to execute combat missions) impact on the traditional attitudes of military men toward women soldiers.<sup>18</sup>

Embodied in the research problem are questions that are the essence of the whole study. They are:

1. Do male officers, by virtue of an "anti-egalitarian" attitude, tend to relegate the female to a role of an inferior or a traditional function within the Army?
2. Does the future male decisionmaker's attitude demonstrate the potential for positive impact because of "egalitarian" feelings toward the role of female members in combat?

#### ORGANIZATION OF THE REMAINDER OF THESIS

Chapter II describes international comparisons of military women in combat and, (through historical research, and a review of contemporary studies and literature), evaluates the extent to which women have been employed in combat in other countries. Chapter III contains a comprehensive discussion of this study's methodology. Design of the research instrument and the treatment of the data are also detailed. An analysis of results of the survey response is presented in Chapter IV. A comprehensive summary, the conclusions, and recommendations are presented in Chapter V.

## CHAPTER I

### ENDNOTES

<sup>1</sup>Harry C. Triandis, Attitude and Attitude Change, (Wiley Foundations in Social Psychology), (New York: John Wiley, 1971), p. 74.

<sup>2</sup>P. Buros, ed., The Fifth Mental Measurements Yearbook (Highland Park, N.J.: Gryphon Press, 1959).

<sup>3</sup>Department of the Army, AR 611-201, Enlisted Career Management Fields and Military Occupational Specialties (Change 9, 2 January 1978).

<sup>4</sup>U.S., Congress, Senate, "Military Procurement Authorizations, 1978," Congressional Record 123, No. 84 (17 May 1977).

<sup>5</sup>William Proxmire, "Opening Statement (Before the) Subcommittee on Economy and Priorities in Government" (1 September 1977).

<sup>6</sup>U.S. Army Training and Doctrine Command and U.S. Army Institute for Environmental Medicine, "Physical Strength and Performance Standards," (Study conducted March 1976 through July 1978).

<sup>7</sup>P. Zimbardo and E. Ebbesen, Influencing Attitudes and Changing Behavior (Reading, Massachusetts: Addison-Wesley, 1969), p. 78.

<sup>8</sup>A. R. Cohen, Some Implications of Self-Esteem for Social Influence. In C. I. Hovland and I. L. Janis (Eds.), Personality and Persuasibility, New Haven: Yale University Press, 1959, pp. 102-120.

I. Silverman, Self-Esteem and Differential responsiveness to success and failure. Journal of Abnormal and Social Psychology, 1964, 1969, 115-119.

A. H. Eagly, Involvement as a Determinant of Response to Favorable and Unfavorable Information. Journal of Personality and Social Psychology, Monogram Supplement, 1967, 7, whole of No. 643, 1-15.

<sup>9</sup>Samuel R. Shalala, "A Study of Ethnocentrism Among White Professional Military Officers" (master's thesis, U.S. Army Command and General Staff College, 1969), pp. 10-11.

<sup>10</sup>B. Bloom, et al. Taxonomy of Educational Objectives, Handbook I: Cognitive Domain (New York: Longmans, 1956).

<sup>11</sup>Robert F. Mager, Developing Attitude Toward Learning (Belmont, CA: Fearon Publishers, Inc., 1964).

<sup>12</sup>D. R. Krathwohl, B. S. Bloom and B. B. Masia, Taxonomy of Educational Objectives, Handbook II: Affective Domain (New York: David McKay, Inc., 1964).

<sup>13</sup>Krathwohl, p. 154.

<sup>14</sup>Krathwohl, p. 209.

<sup>15</sup>U.S. President's Commission on the Status of Women, 1963, American Women Report of the President's Commission of the Status of Woemn, 1963, 1963.

<sup>16</sup>U.S. Congress, Senate, Committee on Armed Services, Fiscal Year 1978 Authorization for Military Procurement, Research and Development, and Active Duty, Selected Reserve and Civilian Personnel Strengths, Hearings (25 January and 24 February) on Part 1, Authorizations of S. 1210, 95th Cong., 1st Sess., 1977.

<sup>17</sup>U.S. Congress, Senate, A Bill to Eliminate Discrimination Against Female Members of the Armed Forces of the United States by Expanding the Job Classifications to Which Female Members May Be Assigned, S. 1628, 95th Cong, 1st Sess., 1977.

<sup>18</sup>U.S. Congress, Senate, "More Women Needed in All-Volunteer Force," Congressional Record 123 No. 147 (21 September 1977): S 15305.

## CHAPTER II

### REVIEW OF RELATED LITERATURE AND RESEARCH

#### PART I

##### HISTORICAL PERSPECTIVE ON WOMEN AS COMBATANTS

###### INTRODUCTION

Gender role barriers are falling rapidly in the American military. Since the establishment of an all-volunteer military force in the early 1970s, the number of women in the Armed Forces has risen from 45,000 to more than 105,000. Approximately one in every twenty members of today's military is a female. Six women, divided equally among the Army, Air Force, and Navy, are generals and admirals. The seventh women of flag rank was promoted in the Marine Corps during April 1978. Women entered service academies for the first time during the summer of 1976. Restrictions on the military occupations of women have fallen by the wayside in the drive for equal rights. Today, 323 of 345 (effective 1 Mar 78) job specialties in the Army are open to enlisted women, 102 of 109 in the Air Force, and 87 of 102 in the Navy.<sup>1</sup> Women in the Army now total more

than 52,000. By 1983, women's strength in the Army will approximate 100,000. It is further projected that by 1985 the pool of recruit-age men will be down fifteen percent.

The elimination of sex barriers has not been free from complication or without critical judgments. During World War II, General Holcomb of the Marine Corps concluded "with undisguised reluctance" that it was necessary to recruit women so more men could be utilized in combat.

By Holcomb's own frequently recounted story, when he went home that night to the Commandant's House and announced his decision to bring women into the Corps, Archibald Henderson's portrait fell off the wall.<sup>2</sup>

Today, some of the criticism of the growth in the female component of the Armed Forces is largely based on tradition. However, a more pragmatic position focuses on whether scarce Department of Defense training dollars ought to be spent on individuals who will be unable to serve in combat situations. An officer serving in the Navy's Officer Candidate School said: "There are men and women who cannot hold up in combat situations. Why not select those who will?"<sup>3</sup>

The Army has favored a noncombatant policy for women largely in the interest of national security and

on the basis of what is perceived to be the will of Congress. This is not to say, however, that women will not serve in combat in an emergency. Although very little scholarly research has been devoted to historical attitudes concerning women in combat, some historical and international examples have been documented which perhaps, best reflects the attitude of the times.

#### IN ANTIQUITY

The role of women in combat reaches back beyond the limits of history into the realms of legend and mythology. The Greek legend of the Amazons is a noteworthy example. Those tall, strong, "masculine," warrior women lived near the Caucasus Mountains and along the Euxine Sea. They formed a state which was under the authority of a queen and excluded men.

Girl children had their right breasts cut off (the name Amazon has been said to mean "breastless") so as not to interfere with the bow arm. Male children were slain in infancy. The Amazons devoted themselves to war and hunting.<sup>4</sup>

The Amazons fought a series of battles with the Greeks, including an attack on Athens, before Achilles finally destroyed a large part of them during the Trojan Wars.

Greek goddesses are frequently represented as having been in combat with each other and as having intervened in mortal fighting. Pallas Athena, one of

the twelve Olympians, was the formal goddess of war.

The worship of Athena is essentially an expression of developing ethical and social principles. She is a goddess of war who fights in righteous causes. Like Zeus, she wields the thunderbolt and the lightning . . . she wears the aegis, symbolizing the dark storm-cloud, and is armed with the restless spear (the shaft of lightning). She participates with skill and wisdom in wars to defend the state, but does not fight, like Ares, with uncontrolled ferocity for sheer love of strife.<sup>5</sup>

Queen Boadicea of Iceni (now Norfolk, Great Britain) was a fighting women of early history. Her husband died in A.D. 61 and left his family and holdings under the protection of the Emperor of Rome. When the Romans abused his trust by confiscating the property and oppressing the people, Boadicea led a violent revolt which resulted in the deaths of more than 100,000 Britons and Romans. In the climatic battle, Boadicea led Icenian chieftains who attempted to use their chariots to break the lines of the Roman legions to permit exploitation by the hordes of following infantry.

Charging the Roman line, the in-rushing Britons were met at close quarters by a deadly shower of spears, disabling their horses and throwing their ranks into confusion. Surviving so much, they were then confronted with the deadly formation of the cohort line, the triplex acies . . .<sup>6</sup>

The result was a massacre of the Britons, but in the final stages of the battle "Boadicea disappeared, her

chariot, (early in the forefront of the battle), perhaps dragged off to temporary safety by her chieftains."<sup>7</sup>

Clearly, Boadicea not only commanded; she also participated actively in the fighting. Moreover, the Celts normally took their families into battle. Whenever the fighting went badly for them, the women and children participated as best they could.

Joan of Arc ranks very high among female military leaders. Her career is well known and speaks well of the outstanding courage and achievements which can be regarded as ideal performance under stress.

#### RECENT EXAMPLES

During the Elizabethan period, the British attempted simultaneously to exploit a breach in the walls and to scale the unbroken Iceni (ancient British) walls. While French soldiers defended the breach, the activity of females was subsequently recorded as follows:

'The Frenchmen's harlots, of whom the most part were Scottish whores, did no less cruelty than did the soldiers; for besides that they charged their pieces and ministered other weapons, some continually cast stones, some carried chimneys of burning fire, some brought timber and impediments of weight, which with great violence they threw over the wall upon our men, but especially when they began to turn their backs.'<sup>8</sup>

When the suggestion was later made that women and children be permitted to leave the town because of the near-starvation conditions, the British refused because they had done the latter "much woe."<sup>9</sup> Although it can be assumed that women and the stronger children participated as a matter of course in siege warfare conditions, this account is one of the few in which the point is explicitly made.

An unsuccessful attempt to use women in combat occurred during the great ferment and turmoil of the Russian Revolution, Anti-Bolshevik forces attempted to conscript women, but the result was disastrous.

In the excitement of the moment, a Women's Battalion had been raised in Petrograd about the time of the February Revolution. It had sided with Kerensky's Provisional Government and was involved in fighting in the Winter Palace. A few women were killed, but the majority surrendered, after which the Bolsheviks formally disbanded the unit. A tradition had been established, but it never flourished.<sup>10</sup>

During the period of consolidation of the Revolution (1920-1928), some women were permitted to volunteer to serve, and a number took advantage of the opportunity.

Some territorial formations had a few squads of them, but mainly they were employed on logistical tasks. There was a minute number in the regular formations for awhile. In addition, there was a handful of women "officers," but most of them gravitated to the political department, while the remainder did staff work rather than command troops . . .<sup>11</sup>

Even so, it appears that the woman who was capable of fighting and desired to do so was allowed to participate in combat units.

During World War II, the Russians were forced to use women in combat roles. Women were an important element in both the guerrilla operations that harassed the Germans behind the lines and in conventional operations. For example, they operated planes in two bomber regiments and one fighter regiment, served as tank crew members and were used as snipers in regular army units. Combat, however, was not the purpose of this utilization for, to the Soviets:

... combat participation by women was less important than their role in releasing men in both the military and industry for combat duty. Almost one million women were in the Soviet Union's wartime forces, but only a relatively small number were combatants. . . .<sup>12</sup>

What is significant is the fact that the Russians were not so doctrinaire as to bar all women from combat. Women who were capable of contributing in combat were allowed to perform in combat roles.

Much the same evolution occurred in Red China, but the emphasis was even more on the side of equality. In the struggle with the Kuomintang and the Japanese, the Chinese Communist Party placed heavy emphasis on women's rights. Young women were among the Party's

most effective agents and recruiters, but they also "took their places in the ranks of the army, side-by-side with the men, and frequently fought in action against the enemy" and Chinese women soldiers are exalted in song, poetry, and ballet as "true Amazons, equal to men in all respects."<sup>13</sup>

In time, however, Chinese women participated as combatants only in extreme circumstances. Although they were trained to use the weapons of the front-line combat units in which they served, they began to function in the supporting roles of cooks, orderlies, and nurses. Today women no longer serve in the regular army, but all women must serve for a time in the Militia.

The women conscripted into the Militia are trained on similar lines to their male counterparts, but are not intermingled with them in ranks, being in separate units. They are initially trained to use small arms and are taught minor infantry tactics, after which selected ones become drivers, anti-aircraft gunners, nurses, clerks, signallers, and army teachers, while the remainder, the bulk, provide (sic) a huge military labor pool.<sup>14</sup>

In general, the governments of the Warsaw Pact countries follow the Soviet lead in the use of women in their armed forces. One of the last to adopt a policy of conscription was the East German Government, which had attempted to draw a distinction between itself, with a voluntary army, and West Germany, with its

need for conscription. Under strong pressure from the Soviet Union and other Warsaw Pact countries, however, East Germany adopted a universal conscription act on 24 January 1962. Part 5, Paragraph 31, of the act, Inter Alia, states: "When the defense of the state requires it, women from 18 to 50 can be subject to compulsory medical, veterinary, dental, technical or any other special service in the National People's Army."<sup>15</sup> Normally, women are not subject to conscription and would serve in combat only if the situation became utterly desperate.

The employment of women in the German Army (Wehrmacht) had its beginnings in World War I. During 1914, the German ground forces began to employ the first civilian women employees to serve "with" the German Army. During the years following World War I, the concept of women employed as civil servants with the military had been so far developed that by the outbreak of World War II a practical basis had been formed for its further expansion. One factor above all was of inestimable value: adequate experience had been gained in collaboration between women and regular Wehrmacht personnel to make possible the systematic organization of the employment of civilian women in support of the war effort.

The employment of women, or of civilians at all, had been entirely foreign to the pre-1914 German Army which ceased to exist after the end of World War I. After that time, it was so well accepted that the employment of women had almost become traditional for all services. No matter how insignificant the position and even if women were in no way connected with military functions; to be employed in some official capacity or other was very popular during this period. It was only when the manpower requirements of the front became too excessive during World War I, that it proved necessary to depart from these principles, and even then the departure was only on a very small scale. Quite generally, careers for women in government service were by no means frequent; this was why the number of women employed in the Wehrmacht during the first years of its establishment was never high. Partly for practical reasons and partly because of social and labor-policy considerations, the majority of the officer corps, most of whom were rooted in Frederician (Frederick II of Prussia, generally called Frederick the Great) concepts and conditions, were averse to having women in the German Army.<sup>16</sup> In the Wehrmacht, women were never "soldiers" but at all times only "personnel attached to the Wehrmacht."<sup>17</sup>

When World War II broke out, employment of women in the German Army was still being organized. The organization had just reached its final stage when the Wehrmacht dissolved in the confusion of military collapse in 1945. Despite all the social and organizational drawbacks and difficulties due to the times, considerable results were achieved and a significant contribution made to the at least temporary successes. Only a few years before, women had encountered severe mistrust in the Army, but the part they played in war service of all types earned the respect due to them.

Women in Western Europe are now notable because their participation in armed forces is less than that in the Communist countries. A survey by the Office of the Deputy Chief of Staff for Personnel, Department of the Army, found that:

Half of the NATO (North Atlantic Treaty Organization) nations do not have women in their national armies, although some have women in the medical services. Of those employing women in other than medical services, few use women outside of the traditional roles. While the term auxiliary may not appear in the title, most countries continue to use women in an auxiliary status.<sup>18</sup>

On the other hand, women played an important role in many countries during World War II as members of the resistance to Nazi occupation. For example, Mathilde

Carre, the "Cat," was instrumental in forming the first great intelligence network in occupied Europe.<sup>19</sup> Odette Samson was one of the best known agents of the British organization that helped to organize resistance in various enemy-occupied countries. She endured torture by the Gestapo and a sentence to a concentration camp before she was liberated by the advancing Allied armies.<sup>20</sup> Nancy Wake, an Australian journalist who was married to a Frenchman, was parachuted behind the enemy lines by British intelligence.<sup>21</sup> Countless other women formed parts of the Resistance Movement in their own countries, participated in intelligence, propaganda, and counter-intelligence activities, and fought pitched battles against regular German units.<sup>22</sup>

Because of the direct threat to their homeland, it is not surprising that Israeli women served side-by-side with men during the early conflicts in Israel.<sup>23</sup> Israeli women do not serve as combatants because of traditional beliefs concerning the capabilities and limitations of women.

The Israeli Defense Force (IDF) is an army of the people. It embodies every characteristic and strata which can be found in the Israeli nation. The equality of rights and duties for the two sexes which exists in the State, exists in military life too. . . .

In Israel, the women's corps (Chen, translated to "charm") is a great asset. Chen is a necessity, and the value of its activities and functions is immeasurable. The fact that Israel, a country with a small population, is surrounded by enemy countries with large populations, forces it to make maximum use of all manpower fit for fighting and/or for work directly or indirectly assisting its defense fighters. . . . Israel's girls (with the exception of those who declare their desire to be released on religious grounds, as well as girls exempt from service for health and social welfare reasons), (sic) serve like the men in the IDF--with two marked differences: Firstly, men serve three years, whereas girls serve only twenty months; and secondly, young men serve in combat units, while the girls, even when serving in combat units, fill non-combatant posts.<sup>24</sup>

Chen has three major missions:

--(I)ntegrating the women into the general security efforts of the State of Israel, while training them for self-defense;

--Performing administrative and professional tasks within the framework of the IDF, thus freeing a maximum number of men for action;

--Combining security duties with educational activities--by spreading educational and cultural values, particularly among new immigrants and in outlying settlements. . . .

Chen women do not take part in actual combat duties but are mainly engaged in the performances of auxiliary (sic) tasks such as: clerical, communications and electronics, driving, parachute folding, nursing, education, welfare, entertainment group, radio announcers, MP, etc. . . .<sup>25</sup>

Nevertheless, in an emergency Chen can also fight. Therefore, great importance is attached to the basic training given to girls. . . . (K)nowledge of weapons is essential, both during service as well as later on, particularly since a fair number of Chen girls join Nahal units, (sic) and make their homes in border settlements.

Israeli women are recruited into the IDF, just as men, by power of the Law of Military Service. According to this law, every girl(,) upon reaching the age of eighteen, must report for 20 months of compulsory military service. After which she remains liable for reserve duty, even as a married woman, up to the age of 34 or until she becomes a mother.<sup>26</sup>

Neighboring Arab countries have also been forced to respond to the demands of dramatic military, political and social changes. Given the nature of a woman's role in Islam, the extent of the fighting Arab women conducted against Israelis in and around Jerusalem and against occupiers in North Africa caused considerable surprise.<sup>27</sup> One observer wrote:

The decision to involve women as active elements of the Algerian Revolution was not reached lightly . . . . Progressively, the urgency of a total war made itself felt. But involving the women was not solely a response to the desire to mobilize the entire nation. The women's entry into the war had to be harmonized with respect for the revolutionary nature of the war. In other words, the women had to show as much spirit of sacrifice as the men. . . .<sup>28</sup>

In Algeria, where the need was desperate, Algerian women forgot their inhibitions, removed the veil, moved out into the European sections with bombs and information, and fought side-by-side with men in the hills. In

Morocco and Tunisia, where the struggle was less intense, women generally did not need to participate,<sup>29</sup> prior to the Twentieth Century.

#### IN THE UNITED STATES

American women have assisted American soldiers in every major war since the Revolution, but never in a formal, organized role until World War I. During the French and Indian War, for example, each regiment of General Edward Braddock's expedition was allotted "forty women employees, one ration per woman."<sup>30</sup> Women who had professional skills as nurses served in the Armed Forces in an organized role during World War I. In addition, approximately 13,000 women served with full military status in the Navy and Marine Corps as "Yeomanettes" and "Marinettes." Women in uniform were sent to Europe to perform duties as French-speaking telephone operators at the request of General Pershing, commander of the American Expeditionary Force.<sup>31</sup>

After World War I the Yeomanettes and Marinettes were disbanded and the only women who remained were those with medical skills. The Armed Forces once again became "all males" and remained so until the crisis of World War II brought about legislation that created

women's components in all military services. Women serving in the Women's Army Corps (WAC), Army Nurse Corps, Women's Auxiliary Volunteer Emergency Service (WAVES), and Women Marines, reached an all-time peak strength of 266,256. This figure represented 2.2 percent of the male force in service during World War II. The thinking in 1945 was to employ women in administrative and combat service support roles, but by 1948 a shortage of men led to a wide expansion of the list of positions authorized for women and performed by women. In 1948, Congress legislated permanent military status for women in all branches of service, with a two percent restriction on the force content. As women's capabilities began to receive more attention, Congressional legislation was enacted to remove inequities concerning limitations on the number of women in service. After World War II, however, the percentage of women dropped from a little more than two percent to just more than one percent between 1948 and 1969, including the active strength of the Army Nurse Corps.<sup>32</sup>

The legislation that established the Women's Army Corps Auxiliary Corps (WAAC) and subsequently led to the current statutes was quite clear that women were to be

in "noncombatant service with the Army of the United States."<sup>33</sup> The legislation which established the Women's Army Corps as a part of the Regular Army in 1942 and the extension of the WAC legislation in 1948 removed the word "noncombatant" and made no mention as to the "combat" or "noncombat" status of women. However, the testimony of witnesses and the comments by members of Congress at that time leave little doubt that, (like the members of the WAAC), there was no intention for women in the WAC to be placed in combat. It is clear from the testimony that the reason for not including the combat restrictions was the difficulty in defining "combat" in a way that would not unduly restrict the usefulness of women.<sup>34</sup>

While the current statutes make only limited reference to the employment of women in combat, the Army has perceived that neither the intent of Congress nor the will of the nation permits the employment of women in a combatant role. Recent discussion in the Senate concerning William Proxmire's proposed amendment to the Department of Defense Appropriation Authorization Act, 1978, Public Law 95-79, supports the position that women should not arbitrarily be excluded from direct combat roles.<sup>35</sup> Although the Army's established policy

precludes women from serving in direct combat roles, it must be recognized that in practically every position on the modern battlefield, whether during an insurgency, conventional war, or nuclear war, women may be vulnerable to direct combat involvement. The Army approach has been to restrict the assignment of women service members from areas where the chance of being involved in direct fighting is the greatest; however, this does not preclude women from becoming involved in their own self-defense or in unit defense. Further, the Department of Defense manpower report to the President and Congress (April 1976) concluded that "our society does not appear prepared as yet to accept the full implications of assigning women to combat roles interchangeably with men."<sup>36</sup>

The basic approach has been to exclude women from assignment to Category I (combat) units, combat/close combat support skills, and most combat arms specialties by the combat exclusion policy. The Army's combat exclusion policy, however, is not based on law. As indicated above, it is based on an interpretation of national will and perceived capabilities of women under combat conditions.

As a result of the 31 May 1977 Army Policy Council discussion of women in the Army,<sup>37</sup> the Chief of Staff of the Army directed that a new, clear, and simple combat exclusion definition for women be developed. The definition was to reflect clearly the level to which the exclusion applied and was to avoid limitations due to geography or strength requirements.

Public Law 95-79, signed on 30 July 1977, allowed the Department of Defense six months to define the term "combat" for the purpose of assigning women to military positions. The definition submitted 8 September 1977, was approved by the Secretary of the Army, as noted above and will be the basis for the Army's initial personnel management guidance for the active Army on the policy of exclusion of women from combat. The foregoing is the current position of the Office of the Secretary of the Army regarding women and combat. The position under review as required by Public Law 95-79, still reads:

There are sociological limitations on the use of women in combat. As the Women in the Army Study (Dec 76) points out, women have fought well in various countries during periods of intense national crises; but today no major nation has women in combat jobs in their standing Army--not even Israel. As more women are recruited, this restriction becomes increasingly relevant. Support people in peacetime often become combatants when

a war breaks out. If a significant proportion of our peacetime force cannot make that transition, we may face serious shortages in early periods of a major conflict.

This problem can be minimized somewhat by reconsidering what is combat. Leading a bayonet charge is different from launching an ICBM (intercontinental ballistic missile) from the United States or operating a fire control system for artillery behind the lines. There is a difference between the first wave of an amphibious invasion and controlling aircraft from an aircraft carrier or typing correspondence on a fleet oiler. Ground combat is fought under particularly harsh conditions. We are just beginning to assess the impact of field conditions on women. We need to reexamine the positions which are now closed to women because of the combat criteria, but we also need to look at the limits on flexibility which growing numbers of women impose on our ability to mobilize and fight a sustained conflict.<sup>38</sup>

On 8 September 1977, the Army recommended the following combat exclusion definition for women for the Secretary's approval:

Women are authorized to serve in specialties/MOS (military occupational specialties) open to them at all organizational levels and within all units of the Army except:

battalion and lower level combat maneuver units and their associated brigade level headquarters.

battalion and lower level field artillery cannon and low to medium altitude air defense artillery units.

units not specified above whose authorization documents assign missions or indicate capabilities which are inherently similar to those of combat maneuver units.<sup>39</sup>

The part of the definition concerning "units not specified" applies to airborne and airmobile forces, combat engineers, special forces, and selected aviation organizations such as attack helicopter companies.<sup>40</sup> Examples of units or headquarters that would be newly opened to women (as of December 1977) are: Nuclear security duties with the exception of participating in recovery operations; Brigade level positions, (except those documented for closed specialties); medium and high altitude air defense artillery battalion positions; missile and rocket field artillery battalion positions; all aviation positions, (except aerial scout and attack helicopter pilots); and some 820 airborne division positions. The exclusion of women from specified combat specialties (i.e., infantry, armor, cannon field artillery, combat engineer, and low altitude air defense artillery units of battalion/squadron or smaller size) remains in effect as of this study. To date, women are not eligible to attend those training courses that are a prerequisite for assignment to the positions from which they are excluded. Today's issue of expanded roles for military women may well be the issue which determines how well Americans as a nation of people and individuals will survive tomorrow.

## CONCLUSION

The use of women as combatants in the various armies during the resistance phase of World War II suggests that there are emergency conditions under which women will be used in combat despite cultural constraints. While women in the West have been regarded as fragile objects to be protected and cherished, effective utilization during periods of massive mobilization of people and materiel resources necessitated their utilization in a variety of expanded roles in non-traditional positions, as can be seen from an historical perspective. Women participated fully in combat operations where they were needed, where there was some kind of a national crusade in which they felt they were a part, and under seige conditions where they were attacked and were forced to retaliate or die.

In normal times, the reluctance to utilize women in combatant roles is great, but when the situation becomes desperate, the fact of women in combatant roles becomes acceptable. This dichotomy bears examination. If women can serve in foreign occupation, in wars of national liberation, and in combat missions with both regular and irregular forces, the opportunity to become combat proficient through regular training and exposure

in combat units should not be denied women in the U.S. Army, solely on the basis of their gender. Moreover, since no one can tell what the future has in store, and since a critically diminishing male population in the United States has been projected, women in the U.S. Army should be systematically trained for combat according to their potential to meet the needs of the Army.

## CHAPTER II

### REVIEW OF RELATED LITERATURE AND RESEARCH

#### PART II

##### CONTEMPORARY LITERATURE RESEARCH: A COMPARATIVE ANALYSIS OF EMPIRICAL AND STATISTICAL STUDIES ON WOMEN SOLDIERS

In response to the recent trend toward expanded social roles for women in all segments of the American society, the military initiated a variety of study projects to investigate the question within the military. During a research project at The United States Military Academy at West Point, known as Project Athena, West Point and U.S. Army Institute researchers jointly conducted an in-depth study of the impact of women on West Point as well as the impact of West Point on the women. Male cadets' attitude surveys reflected that the cadets favored increasingly traditional sex-role concepts, complained about the lack of instant perfection in the new female cadets, the attention given to women, and the constant supervision given by the Academy to ensure success of the integration. After the first year of coeducation at West Point, male cadet attitudes toward

women did not become more favorable. Estimates from other places--such as Princeton--suggest that it may take a long time until women are accepted fully into every aspect of Academy life.<sup>41</sup>

The U.S. Air Force and the U.S. Navy have opened their military academies to women<sup>42</sup>; however, because of the enduring tradition and the ascribed criteria of maleness; resistance to change, particularly within the male cadet subculture, has occurred. Traditional attitudes towards women have generally solidified among the males, for usually the same reasons, i.e., perspectives on gender role appropriateness, interdependent behavior and common fate during the cadet training period. Compliance is often dependent on the power of the source; identification is dependent on its attractiveness, and internalization on its competence. Groups which consist of persons who are status incongruent will be in a situation of status tension, until credible performance resolves the emotional distractions and defensiveness among group members. A functional interpretation of the research conducted by Janis and Rausch (1970) concerning anti-military attitudes among young eligible males infers that ego-involving threats to self-esteem could cause avoidance

of an ego-involving experience in the military environment.<sup>43</sup> This is essentially because environments non-supportive of one's basic values tend to threaten self-esteem, notably when exposed to or challenged by situations in which one would be highly ego-involved. Other theoretical views support the position that the more extreme the attitude of an individual, the smaller is his latitude of noncommitment and the larger his latitude of rejection, whether subjectively or objectively.

The Army's announcement of an unprecedented plan for utilizing women in expanded roles was preceded by numerous in-depth studies on the capabilities of women, the effects of the female's presence in maneuver units, readiness and morale and the impact on the Army's defense capability.

A recent article in the U.S. News and World Report recounted that statistics have shown that some 40 percent of all volunteers since the draft ended in 1973, dropped out before completing their first three-year enlistment. So far, the services have been able to recruit enough to counter that. But by 1985, the pool of recruit-age men will be down 15 percent; and unemployment may be lower, removing one incentive for volunteering. How to fill up the ranks then? One idea: Recruit more women. Another: Increase pay and fringe benefits. Revive the draft? Politically difficult! Another problem is that Reserve forces also are down. The Army will try to get them up to strength with re-enlistment bonuses.<sup>44</sup>

As of 12 December 1977, a coordinated Army position has been presented to OSD, (Office of the Secretary of Defense) which recommends the level of recruitment during FY 78 and 79. For the preceding reasons and a variety of other circumstances, the Army has committed itself to an accession rate of women greater than the 15,000 recommended by the study.<sup>45</sup>

Since the Army's goal is to integrate more women into nontraditional jobs within the force, plans for recruiting to support an end strength in excess of 80 thousand enlisted women (not including officers) by the end of FY 83 are currently underway. Current plans are to achieve approximately 10 thousand women line officers by the late 1980's with a level accession rate of 650 women line officers per year will continue.<sup>46</sup> Aggressive efforts to recruit women special branch officers and women warrant officers will also continue with an eventual goal of 15 thousand women officers. The current recruiting policy will be modified to reserve training positions for women. All soldiers will be deployed under the same criteria and the number of separations of pregnant women or sole parents will be held to a minimum by Army policy guidelines. The Army is making a systematic and rational attempt to organize the utilization of women, within the

framework of readiness standards for national defense. Numerous studies have been conducted in order to build a valid, balanced force within the total force structure. But no acceptable shortcuts have been identified to significantly shorten this total evolutionary process.

A number of empirical and statistical research studies have been conducted within and on behalf of the Army and to date, a number are still ongoing to reach optimum force objectives. The "Women Content in Units Study" was conducted in order to examine percentage of female requirements by geographic boundaries, e.g., brigade rear boundary through division, corps, field Army areas.<sup>47</sup> Various practical experiments and scientific research projects were launched to gain knowledge of the capabilities and limitations of women prior to revision of the combat exclusion policy.

The "Women in the Army" study was a large study primarily examining all military occupational specialties for applicability and pregnancy policy as well as by attitudinal and opinion surveys. Additional military occupational specialties were opened to women as a result.<sup>48</sup>

The Basic Initial Entry Test examined female performance in comparison with males. Basic critical tasks and skills (except in the area of physical readiness

training-test) were evaluated. As a result, common basic initial entry training was initiated 1 September 1977.<sup>49</sup>

Military Personnel Center, Department of the Army, conducted the "MILPERCEN" Study from February 1977 to September 1977 to examine actions required if the female level of recruiting and end strength were to increase in future years.<sup>50</sup>

A "Cost Analysis" Study was conducted to determine the differential costs of men vs women throughout the initial enlistment term and through a 20-year career plus retirement.<sup>51</sup>

A study on "Physical Strength and Performance Standards" is a two phased study involving examination of physical baseline standards, military occupational specialties' peculiar standards, and battlefield stresses.<sup>52</sup> Later this study, during an experimental phase, will establish tests of physical strength to be administered at Armed Forces Entrance and Examining Stations.

A study on the "Redefinition of Direct Combat Role" is currently being conducted by Office of the Deputy Chief of Staff for Personnel to determine a new definition of "combat."

The Maximum Women Army Content (MAX-WAC) Tests assessed the effect of varying percentages of female soldiers assigned to representative types of TOE units on a unit's capability to perform under field conditions.<sup>53</sup>

Twelve pertinent studies were conducted by the United States Military Academy at West Point to examine the behavior, attitudes and other variables and contributing factors affecting the performance of women at the U.S. Military Academy.<sup>54</sup>

Other ongoing studies which are due for completion and publication in 1978 include a study from the Market Studies and Analysis Directorate of U.S. Army Recruiting Command which will conduct a market and attitudinal survey and project the number of women available for service in nontraditional military occupational specialties. Findings were to be submitted to the Office of the Deputy Chief of Staff for Personnel by 1 April 1978. There was no requirement for recruiting goals to be established to support the individual military occupational specialty requirements of the current women's force objective.

The Administration Center at Fort Benjamin Harrison, Indiana, has been tasked to conduct a study to evaluate

all units by military occupational specialty and grade to determine the percentage of the force structure which could be occupied by women. This study was completed in March 1978, and the results are presently being evaluated.

The "REFORGER 77 (REFWAC 77)" Study was conducted by Army Research Institute from August 1977 to November 1977. This extension of MAX-WAC looked at female impact during deployment and operations in an extended field environment. The results of this study will be discussed later in this chapter.

"Comparative Data Collection Effort" conducted by MILPERCEN--Office of the Deputy Chief of Staff for personnel, Department of the Army from July 1977 to March 1978 is to determine the amount of lost time and nonproductive time of men vs women. To date, the results have not been published.

The "Attrition Analysis" Study conducted by MILPERCEN, Department of the Army from July 1977 to March 1978 is to determine the gravitation of women from nontraditional to traditional skills.

A Background Study on the Use of Women in the Military was conducted by a study team, led by Commander Richard W. Hunter, U.S. Navy. The study analyzed the

the present utilization of women on active military duty and projects the number of enlisted women who could be employed by 1982. The increasing use of women in the military was seen as necessary to facilitate sufficient strength to support popular sentiment to end the draft as well as to accommodate society's movement towards equal opportunity for women. More importantly, an increased number of women could significantly contribute to the stability of an all-volunteer force in the face of a declining youth population. The problem of scarcity lies not in the recruitment of qualified officers, but of people to fill the 1.8 million enlisted positions. Recruiting more women for active duty in enlisted positions can exert two effects, i.e., overall quality would improve, as women generally have higher levels of education and test scores, and money would be saved since recruiting costs, in an otherwise tight market for young males would decrease.

The basic findings of Hunter's "Use of Women in the Military" study were: (1) Enlisted women on active duty more than tripled in number from 1971-76; (2) Active duty women were being promoted at the same or higher rates than men in all occupations open to women; (3) Women were retained at the same overall rate as men (with a

higher loss rate, however, in nontraditional occupations); (4) Progress had been made in employing women on active duty in nontraditional occupations; (5) The Navy, Air Force and Marine Corps were planning large increases in the number of enlisted women on active duty during 1978-82; 83); (6) Many positions on ships could be filled by women if the current law banning them from service on Navy ships were repealed; and (7) There were more high quality women ready to enlist than were accepted.

More specifically, the study showed that women with comparable longevity in service had the same mean pay grades as their male counterparts, if not higher, and first-tour women had somewhat higher mean pay grades in the administrative and medical/dental fields, which have long been open to women in the military. Retention of women was the more controversial issue, since women historically have had shorter terms of service than men, largely because pregnant women were discharged. The study found that the reverse was true, however, since 1970. For Department of Defense as a whole, "women had a higher retention rate than men in all six years," despite "sociological pressures, such as marriage and family."

While the Services have indicated there are no positions closed to women due to physiological reasons, such as stature or strength, a number of costs are associated with reduced performance due to such differences: lost time due to pregnancy and abortions, restrictions on deployability, and societal limitations on the use of women in combat. Hunter's study concludes that "On balance," however, "the cost of men and women on active duty is about the same."<sup>56</sup> A more recent study by Binkin and Bach refutes this finding and will be discussed in detail later in this chapter. Hunter's Use of Women in the Military Study further points out that the perception of time lost due to physiological causes, that are generally cited as "inefficiencies associated with women," is fallacious since women lose "only about half as much time as men."<sup>57</sup> Negligible time is lost for menstruation by healthy women with good physical condition; and while much time is lost for pregnancy, time lost by men to desertion, alcoholism and drug abuse is comparable. Time lost for unauthorized absence by men, usually a matter of days, is comparable to that for abortion.

Each of the Services has encountered its own problems, and devised its own solutions, with respect to the role of women. There is much evidence from recent research

done in different settings of the Armed Forces which indicates that the adoption of innovations depends on the attitudes, norms, values, habits and reinforcement expectations of the individuals involved, as well as on some interactions among these variables.

The Army has established a steering committee which has made decisions to: revamp command policy to allow women to command men; equalize enlistment options for men and women where feasible; open additional skills areas to women; modify overseas tour lengths to make them equal for men and women; and revise designs for barracks construction to accommodate both men and women.

Selection 6105 of Title 10 of the U.S. Code, which precludes the assignment of women to combat aircraft and ships or support ships, has posed particular problems for the Navy by closing over 250,000 positions to women. In effect, 88,000 more positions are also eliminated, since they serve as the rotation base to provide shore duty for the men who serve aboard ship. The Navy proposed slight modifications to Section 6015 so that women could serve in vessels such as research or training ships, opening 2,000-3,000 posts to women. The study notes, however, that to open significantly more posts, Section 6015 would need to be repealed or drastically modified.<sup>58</sup>

In the Air Force, limitations are imposed upon more officer positions than enlisted because officers carry the major burden of combat duty, particularly in aircrews.

Werrell says in his article, "Many have argued for and against women in the American military more often than not with greater emotion than intellect."<sup>59</sup> "First things first. Change the law. Train women. Assign them to all positions in the Air Force. Then implement full integration. Finally, if war erupts, employ women with their units."<sup>60</sup> The objective here is to allow the interaction to proceed, in face-to-face encounters in order to facilitate credibility and respect with minimum prejudice and maximum effectiveness.

Under current restrictions, Marine Corps force units and support units are virtually barred to women. The Marine Corps had the most difficulty among the Services in meeting its recruiting goals. In order to insure sufficient quality, numerical targets have been reduced. This reduction could be eliminated if more high quality women were to be actively recruited. This could, however, intensify the Marines' already prominent problem of rotation base pressure.

It appeared to this researcher that the comparisons made by the interviewees in the Use of Women in The Military Study were rarely based on systematic investigations. It appears inherent in the nature of the exercise that the statements made about such factors as interest in training, managerial qualities, technical competence, independence, etc., were fairly generalized and subjective, i.e., based largely on personal judgment. Whatever statistical data were referred to as a point concerning differential absence and attrition rates; fairly consistently, the mean was quoted without reference to the dispersion around it. The available statistical findings demonstrate that in most respects, differences between different individuals of the same gender are greater than those between the means for the two genders. The statistical dispersion is such that the two distribution curves cover areas that largely coincide, i.e., there are some women who are physically stronger and more interested in technical matters than the average man, while there are some men who exhibit greater manual dexterity and interest in languages than the average women. In other words, the mean values give data which are too general to be applied to the behavior of individual men or women. The wide dispersion

from the mean indicates that other factors play a prominent role. In the interpretation of the finding concerning physical capacity of women, the mean offers no certain guidance in the allocation of work tasks. The real importance of physical strength in a military context characterized by accelerating mechanization and automation of weapons systems has yet to be unequivocally determined. One conclusion implied by technological development is that differences in the physical strength of men and women may be decreasing in practical importance.

Extensive and varied research in occupational physiology has demonstrated that the special measures designed to protect women workers, in many countries enshrined in legislation, are possibly without physiological foundation. The results of such research have recently begun to win acceptance among managers in civilian industry particularly in the assessment of physical job requirements. Military job requirement analysis helps to determine recruitment requirements and provides a basis for ergonomic measures as performance evaluation under a variety of conditions.<sup>61</sup>

Anthropometric and body composition differences-- in size, muscle mass, bone mass, fat distribution and

structure of the elbow joints and pelvis--favor men in strength, explosive power, speed, and throwing and jumping abilities. The most obvious anthropometric differences are in height and weight: The mean height of 18-year old males is 69.1 inches compared to 64.1 inches for females of the same age. The mean weights are 151.5 pounds and 126.9 pounds respectively. Researchers at West Point have summarized these differences,<sup>62</sup> giving men a distinct physical advantage in physical endurance and heat tolerance. Montagu gives some very credible arguments which raise the question of which of these reports used a representative sample from which every source of bias had been removed.<sup>63</sup> Montagu's proposition will be dealt with in some detail later in this chapter.

When you stop and think about what is revealed in the Stauffer (1976) Study regarding the West Point Physiological-Anthropometric differences, the males and females are not really comparable.<sup>64</sup> Though Stauffer found that men had more upper body strength, power, and endurance; greater leg strength, power and endurance; greater hand strength; and greater height and lean body weight and the women had greater body fat; the conclusions to be drawn may be virtually meaningless in the

long run. These findings were important to West Point because it provided the only legal rationale for different treatment of the two genders.<sup>65</sup> It was further stated that very careful laboratory measurements of a random sample of 30 men and 30 women formed the basis for Stauffer's data; and that at West Point, the two genders differ more than they do in the population at large.<sup>66</sup> The previous conditions of these two groups really are not comparable. The males had been physically conditioned and oriented toward physical competition; the women generally had not been so oriented prior to arrival at West Point. These figures do not necessarily prove that the men at West Point will outperform the women in the long run. Neither do they prove the contrary.

War or the threat of war is almost continuously with us, and whole generations have been educated to believe that war and conflict are natural concomitants of human living. Where violence has been traditionally resorted to as a means of settling disputes, physical force becomes not only a valued trait but also a sanctioned form of behavior. Men, because of their greater muscular power, consider the shorter, slighter, and muscularly less powerful female, less biologically

competent to withstand exposure, shock, fatigue and the rigors of life insofar as sheer muscular endurance and efficiency at survival are concerned. One body of thought asserts that the female endures all sorts of devitalizing conditions better than the male because she is "constitutionally" stronger and only muscularly less powerful; she has greater stamina and lives longer. The larger size and muscular power of the male has continuously been outlived by the smaller bodied, less muscularly powerful female from birth to death as can be shown by statistics.<sup>67</sup> The males' greater muscular power provides certain immediate social advantages, NOT biological advantages; the efficient functioning and survival of the male does not depend upon violent conflict but upon biological stamina. Men's behavior toward women has been conditioned by the social heredity represented by TRADITION. It is not the biological facts but man's social attitudes toward women--attitudes that are based largely upon a misinterpretation of the facts.<sup>68</sup>

There are some distinct difficulties in gender role perceptions which are not simply problems in the communication of facts; deep and complex psychological conditions are involved in the facts as they are often asserted to be unquestionable truths. A fourteen nation

study of the working mother conducted under the auspices of the United Nations Educations, Scientific and Cultural Organization (UNESCO) and published in 1967, showed that women in general work longer hours and have less leisure time than men. Women are healthier than men--if by health one means the capacity to deal with the disease and illness.<sup>69</sup> Statistics from the public health services of various countries, and especially the United States show that while after the age of fifteen the sickness rate is higher among females than among males, females recover from illnesses much more frequently than do males. Death from almost all causes are more frequent in males at all ages. Almost the only disorders from which women die more frequently than men are those subserving the functional systems of reproduction; namely, the reproductive tract and the endocrine glandular systems. The evidence from Montagu's Table on Sexual Differences in Susceptibility to Disease gives insight into a greater constitutional strength of the female as related to the female's possession of two complete X-chromosomes and the male's possession of only one.<sup>70</sup> This may not be a total explanation of the physical constitutional superiority of the female, but it is certainly scientifically the most acceptable explanation.

Through the centuries, it has been alleged that on the average, women had smaller brains than men; less intellectual capacity; they were more emotional and unstable; in a crisis you could always depend upon them to swoon or become otherwise helpless; they were weak and sickly creatures; they had little judgment and less sense; they could not be entrusted with the handling of money; and as for the world outside the domestic domain, they could be employed only at the most menial and routine tasks involving no decision-making. Much of the same attitude prevails today.

Both sides of this complex issue involving these attitudes toward women deserve to be presented. At one extreme, those who feel that greater reliance on women would weaken the military point to differences in physical attributes and vocational aptitudes between men and women. Many also believe that women would disrupt the social network considered so important to military organizational effectiveness. There are some who believe, too, that women would detract from the U.S. military image abroad.

At the other extreme, in the National Organization for Women, the Committee for Women in the Military, whose motto is:

"On Land, on sea, and in the air--a Woman's Place is Everywhere," states its position: Should women go into combat? To some the question is completely irrelevant. It only need be known that there are capable women who want these jobs. . . the question that needs to be asked is . . . Does the military have the right to treat women, regardless of ability, as incompetents who must have their decisions made by others?" Does a woman have a right to volunteer for combat if she feels qualified to make a contribution, even if it does involve loss of life or limb?"<sup>71</sup>

One argument against assigning women to traditionally all-male roles or occupations is the one-time costs associated with designing special clothing and equipment. For example, Army equipment is generally designed for the anthropometric dimensions of those men in the 5th through the 95th percentiles. In a number of critical dimensions--weight, stature, sitting height, eye height, popliteal height (floor to thigh while seated), functional reach and foot length--the average women measures significantly less than the average man. For example, among women aged eighteen to twenty-four years, about 45 percent weigh less than a man at the 5th percentile (124 pounds) in the same age group, about 60 percent are shorter (64.3 inches), and about one-half have a shorter popliteal height (16 inches).<sup>72</sup>

Research has revealed that although differences may appear insignificant, "seemingly minor variations

of a few centimeters in the essential dimensions may be critical determinants in the efficient and safe usage of vehicles and vehicular subsystems, controls, instrument panels, displays, etc., and in the adequate accomodation of some clothing and protective gear.<sup>73</sup> As women move into activities for which material designs are currently geared to their larger and stronger male counterparts, the consequences of designing future aircraft, tanks, and other weapons to accommodate smaller, lighter women, should be considered.<sup>74</sup>

Because of higher educational requirements, women enter the service on a higher qualitative base than do men and are, therefore, likely to be more productive. In past years, the excess supply of volunteers has demonstrated that there is a growing supply of women wanting to serve in the Armed Forces.<sup>75</sup>

Evidence is readily apparent, as previously recorded at the conclusion of World War II, that success in training is not determined by sex. Rather, success is determined by insuring that an individual is qualified mentally and physically prior to entrance into training, whether the entrant is male or female. The question then becomes, what qualifications are necessary to perform the duties of a particular MOS, the entire spectrum of that MOS must be analyzed, to include the requirements for field duty and susceptibility for such additional duties as guard, KP,

charge of quarters, etc. It does not appear to be a question of whether women can, will or should fight but, rather, a question of will they be permitted to fight or be put into a position where they may have to fight.<sup>76</sup>

On the floor of the House, the views of those who agreed with the Pentagon for opening the service academies to women were boiled down to the following comment by Representative Lawrence McDonald of Georgia: "It is therefore obvious that the combat issue is not a false one; it is indeed the central question. If we do not wish our women to serve in combat roles, we should not have them attend our academies."<sup>77</sup>

The Secretary of Defense is still reviewing the combat question as required by Public Law 95-79, to determine the best reddefinition of the term "combat" and the extent to which women should be used as Combatants.

The MAX-WAC study report made public its results in November 1977 which found women can fulfill more extended roles. Thirty-five percent of combat support units can be filled with women without altering unit performance. The MAX-WAC study set out to determine the maximum percentage of women combat support units could contain before their effectiveness would begin to suffer. The Army Research Institute evaluated the performance of 55 support units--military policy, maintenance, medical, transportation and signal--during intensive, 72-hour field exercises. This does not

mean that 35 percent of the Army will be female. As of the date of this thesis, the ARI has not released the full report on MAX-WAC because it is undergoing careful staffing in view of the significant impact it may have on Army personnel management. For Army units stationed close to possible combat areas, such as many U.S. Army Europe units located near the East German and Czechoslovakian borders, the 35 percent female "fill" in support units most likely would be lowered according to Army officials.<sup>78</sup> There are now 52,657 women in the Army. Since the number of women in the Army is expected to nearly double over the next five years, the Army is trying to determine what effect such a female content increase would have on Army males. Some of the concerns with an increased female content are: disruption to male officer career development; inequities to males who may be forced to spend more time in combat units and in the field because women would occupy many staff jobs in the rear areas.

The female Army officers' profile was depicted eleven years ago in the DCSPER 122 Report for November 1967 and indicated a female commissioned officer strength of 849. This represented an increase of 39 over the strength of 1966. In 1967, 40.7 percent of the women

officers were serving in field grade positions. College degrees were held by 75.4 percent of the female commissioned officers. The proportion of officers holding advanced degrees (Doctorates and Masters) was 9.5 percent. Twenty-five percent of the female commissioned officers were over age 40. The median age of officers was approximately 31 years. About 70 percent of the female commission officers were qualified excellent (A) on the physical profile. Only 0.2 percent were classified in category (E).<sup>79</sup> The characteristics of the female officer are becoming more closely aligned with her male counterparts as a result of sources of commission and expanded career progression opportunities.

The female population of the United States on 1 July 1975 was estimated at 109,377,000. This figure was about 5.6 million larger than the number of men and represents 51.3 percent of the total population 213,137,000.<sup>80</sup> Since 1910 the female population has grown faster in each decade than the male population. The gender ratio has declined steadily from 106.2 in 1910 to 94.9 in 1975. At the turn of the century, men constituted 51.1 percent of the total U.S. population; in 1950, for the first time in any decennial census, women outnumbered men. This trend is continuing. The proportions of females and

males as reflected in census data are affected by sex ratios at birth; differences between the sexes in net immigration; differences between the sexes in age-specific death rates; the balance of the sexes in other new movements. Although the sex ratio (number of males per 100 females) at birth is a little above 105, this small preponderence of males at the start of life is reduced, first by the higher infant mortality of males and, then, by the higher death rates of males at other ages. Census Bureau projections (Appendix A) indicate that women will continue to outnumber men throughout the next quarter of the century, and that the gap between the number of women and the number of men will continue to increase. The excess of women over men is projected to range between 6.2 million and 6.5 million by 1985 and between 6.9 million and 7.9 million by the year 2000.<sup>81</sup>

In 1977, the Office of the Secretary of Defense investigated the possibility of expanding the number of women in the military active forces to 100,000 by fiscal year 1982. This seems a particularly important option since "Two factors suggest that large numbers of qualified women might be attracted to military service: first, the supply of female high school graduates

of average or above intelligence is barely being tapped by the military, and second, sex discrimination is not a factor in military pay as it is in civilian pay."<sup>82</sup>

The conclusions of a parametric analysis through Women's Enlisted Expansion Model (WEEM) and the Women Officer Strength Model (WOSM) did not support a force content of that magnitude. Therefore, the Army considered an approach based on the tenets of equal opportunity for women and the necessity to field an Army which can accomplish its primary mission of land combat."<sup>83</sup> This resulted in a projected end strength of approximately 89,500 (80,000 enlisted and 9,500 officers) by end FY 1983.<sup>84</sup>

The Army Research Institute (ARI) MAX-WAC tests found that men in the tested units did more of the heavy work than women. It was not known, officials indicated if the women made up for this by doing more light work. Army Official, Cecil D. Johnson, Chief of the ARI's section on Career Development and Soldier Productivity, states, "The problem is that sergeants weren't assigning females to dig foxholes as much as men; so it does not prove the women can or cannot do it." The 800 women and 6,000 men in MAX-WAC units during Army Training and

Evaluation Programs (ARTEP) filled out questionnaires, asking them to evaluate the performance of other soldiers. The questionnaires checked male attitudes toward females before and after working with them on the ARTEP. Those results will be released after this report has gone to press and therefore cannot be included in any comparisons with the questionnaire administered in this study. None of the test ARTEPs was conducted in Europe. Four took place in Hawaii and the others were in the continental United States. Some commanders balked at evaluating women troops based on a three-day exercise, although some officers said 72 hours is long enough for rigorous training "where you don't get much sleep." "But because the Army cannot afford to take a chance," Johnson said, "ARI is analyzing data on women who took part in Reforger 1977's ten-day field exercise in Germany. The Army is trying to clarify the difference between combat and combat support units. Many units easily could become embroiled in fighting."<sup>86</sup> This raises a question of whether or not they are combat units. "The 1968 Tet offensive in Vietnam was stopped by some support units," Johnson said. "MPs have had to fight in the front. During the Battle of the Bulge (World War II in Europe)

transportation companies fought like infantry. Many support units have had to fight like infantry. When the chips are down you have to pick up a rifle."<sup>87</sup>

Martin Binkin and Shirley J. Bach (researchers for the Brookings Studies in Defense Policies) contend in a 1977 study that up to 50 percent of all military enlisted jobs potentially could be filled by women. These authors propose that this could be done "without departing radically from current policies and practices and without disrupting the rotation and career pattern for men."<sup>88</sup>

Extensive use of females, short of combat duty, would call for women to fill 366,000 jobs or 76.3 percent of enlisted strength in the Air Force; 176,000 enlisted jobs or 25.7 percent of strength in the Army; 42,500 jobs or 8.9 percent of strength in the Navy, and 15,000 jobs or 8.5 percent of strength in the Marine Corps, according to authors Binkin and Bach.

The authors concede that consideration of full use of women in a combat role is quite another matter. The performance of women in combat is little more than a few brief historical accounts, although there is frequent anecdotal reference to the service of women in the Soviet Army during World War II and in the Israeli

Defense Force in the 1948 war. They propose that each service test the possibility of integrating women into combat units so that uncertainties about the effects on mission can be evaluated.

Binkin and Bach contend that women's participation in the military today is "too low in light of today's changing social values" and the looming threat of a reduced pool of potential military-aged male volunteers.

The major controversy over an expanded role for women in the U.S. Armed Forces centers on the implications for potential combat involvement. Federal legislation--specifically the Women's Armed Services Integration Act of 1948--categorically restricts the placement of women in combat positions only to a minor extent in terms of total functions to which they could be assigned. However, this legislation provides liberal leeway for interpretation of restrictions by the individual services; the result, say the authors, is a set of laws and policies which "relegate women to a minor role." Evidence examined by Binkin and Bach indicates that none of the national institutions--social, political, economic, judicial or military--would oppose expansion of the role of women in the

in the armed forces for the most part. It cannot be assumed that the concept of women as combatants would be condoned without extensive debate, and exhaustive research.

The Brookings Study examines two factors which are crucial to the question of gender composition level in the military: economic and military effectiveness. Surveying major areas of economic concern (i.e., one-time costs associated with modifying existing facilities or redesigning clothing/equipment, cost of dependents, possible differences in retention patterns, and the effects of more qualified volunteers on the price of military manpower), the authors conclude that increased recruitment of women would yield long-term budgetary advantages. Further, existing data indicate that personnel "quality" (measured by educational level and general intelligence aptitude tests) could be projected to improve through increased female enlistment.

That study also points out that "the consequences of granting full equality. . . have not yet been fully explored and cannot be adequately assessed either for military effectiveness or for society as a whole." In this regard, the authors suggest that the DOD, in conjunction with the Congress, should devise an experimental

program in which each military service would be required to integrate selected combat units that currently exclude women. This should be designed to determine how many women would volunteer for the available positions and what effect they would have on unit performance. If properly conducted over a period of several years, such a program could be a good indicator of whether present obstacles to optimum utilization of women in the U.S. military could be removed.

Binkin and Bach have thoroughly and expertly examined certain aspects of the role distribution between the sexes. Gender roles are still clearly defined even if the differences are somewhat less clear than those prevailing one generation ago. The interesting problem of why certain forms of behavior are ascribed to the male role and others to the female role has yet to be solved and cannot be thoroughly examined in this study. However, some insight may be gained by looking at another dimension of the gender differences, i.e., gender ideals rather than gender roles. In contrast to gender roles, which are marked by certain forms of behavior attributed to one sex more than the other, gender ideals are characterized by certain positive-valued traits ascribed to each of

the sexes. Today, even in modern society, there is no objective foundation for the choice of gender as an important criterion in differentiating the socialization process. The traditional system, however, has gained such a firm hold that almost by itself the process continues.

The first women trained for combat will have to overcome an extra dose of scepticism. Women who are reasonably successful at 'men's' jobs are often suspected of not being 'real women' or else the phenomenon is explained by the fact that they are 'exceptional women.'

Recent studies of absenteeism among lower grade enlisted personnel have consistently found that a relatively small fraction of the female work force accounts for the preponderant part of total absences. In addition, industrial attitude studies have indicated that there is a fairly clear relationship between absences due to illness and age, salary level and job status. Thus, younger workers tend to be absent more frequently than older workers and those performing unskilled and repetitive tasks more frequently than older workers, low paid workers more frequently than high paid workers and those holding responsible positions. There is some

empirical evidence, however, to suggest that the average turnover rates of women are relatively higher than those of men. This may suggest an area for further research regarding the impact of limited promotion and career opportunities as well as disparate treatment.

The central insight of all the literature published on women as combatants reveals a hierarchy of values which includes physical suitability, career limitations and ability to perform in traditionally all-male positions. A literature search of the extent to which women have been utilized in the military implicitly insists that the thoughts, feelings and aspirations of women concerning a military role are dealt with in separate spheres from men in the military regardless of their educational background, ambitions, and special abilities or talents.

The primary interest of top government and military officials is to promote the interests of national security. The Army is a combat power and must maintain a ready defense posture. Historically, women supported this same view; however, there is revealed a long history of women on the periphery of combat restricted by role expectations. Role perceptions, social beliefs, and viewpoints concerning the capabilities and limitations

of women place them in traditional or stereotypical roles which too often disesteem their intellectual gifts, ambitions and independence. To a large extent such stereotypical views are based on tradition and to a small extent on empirically ascertainable facts as gleaned by limited observation of women performing non-traditional jobs on an experimental basis for the first time in history. The difference between attitudes and realities must be recognized and dealt with separately.

The underlying purpose of Part III of this chapter is to locate present research in the existing body of research on attitudes and to point out what it contributes to the subject.

## CHAPTER II

### REVIEW OF RELATED LITERATURE AND RESEARCH

#### PART III

##### RELATED RESEARCH IN THE EXISTING BODY OF ATTITUDE RESEARCH

The historical and contemporary comparisons of completed empirical and statistical studies were used in this research as secondary sources. The interpretation of them increases the value of this work as a source document.

In reality, fixed recruiting standards, quotas and procedures for procurement of women accessions into expanded roles have imposed a tentative commitment to meet Department of Defense prescribed goals and time-tables for integrating women more fully into the Army force structure. The question of whether or not women will be included in units with a combat mission is nearly moot. Army Chief of Staff Rogers has reaffirmed the Army's position that military women will be deployed with their units during wartime.<sup>89</sup> Therefore, the most serious issue before the military is whether that inclusion will take place in the spirit in which it was

intended; that is to ultimately meet the challenge of sustaining a large standing armed force without the sacrifice of readiness or the erosion of our national defense posture. It is interesting to note that Quester sees the incorporation of women into combat units as a signal of a "defensive" posture which could aid the image of the American military.<sup>90</sup> Nevertheless, in order to fulfill that commitment it is necessary that the impact of attitudes be understood and applied.

Attitudes help people to understand the world around them, by organizing and simplifying the very complex input from their environment. Attitudes protect self-esteem, by making it possible for people to avoid unpleasant truths about themselves. They also help people to adjust in a complex world, by making it more likely that they will react in a way that maximizes the rewards from their environment. Attitudes also allow people to express their fundamental values. An attitude is a predisposition to respond and is represented by consistencies in the responses of individuals to social situations. Those who have developed procedures for the measurement of attitudes have adopted restricted definitions. Whereas those concerned with theory development have adopted broad definitions that allow the analysis

of the functions resulting from attitudes.<sup>91</sup> Typically, those concerned with measurement have defined attitudes as unidimensional constructs (for example, the degree of positive or negative affect), and those who have been concerned with theory building have employed a number of components. Fishbein has adopted a middle-ground position which employs three components to measure theory development, but provides for the explicit operational measurement of each one.<sup>92</sup>

Attitudes consist of three types of components: affective, cognitive, and psychomotor or behavioral intentions. Behavioral intentions are related to overt action; but overt action also is dependent on habits, norms, and attitudes other than the attitudes that are directly relevant to the behavior toward a particular attitude object. Behavior intentions depend upon the way a person feels about the attitude object but also upon the expectations of the person concerning what will happen if the person behaves in a certain way. There is evidence that these expectations include ideas about the consequences of behavior; whether pleasant or unpleasant.<sup>93</sup> Habits are established through learning processes, such as those described in an introductory psychology course. Norms of social behavior depend upon

the messages received from others.<sup>94</sup> Numerous theorists have suggested that affect is acquired through classical conditioning, such as when a category is paired with pleasant or unpleasant events or outcomes. Cognitive structures are acquired when categories are frequently paired with other categories or events in the particular environment in which a person grows up. Thus, the attitudes of a person involve cognitive structures, affect, and behavioral intentions; all of which depend on the interaction of the individual with his environment. Furthermore, there is much evidence to indicate that these three types of components of attitude interact with each other and tend to become consistent; when one changes, say affect, it will tend to change the other two. Also, when a person behaves he changes his cognitions and affect to align them with his behavior, so that most of the cognitive elements found in a person at a given moment of time tend to be consistent.<sup>95</sup> The person's attitudes depend upon the kinds of anchors that he used to understand his environment. We constantly compare ourselves with others who are in similar positions in the social structures in which we belong. If we bring to a situation inputs of a certain level (i.e., education, position, experience) we expect to get out of it outputs (rewards,

prestige, power), that are at least as high as the rewards received by others who bring comparable inputs to the situation.<sup>96</sup> We are satisfied when our environment provides us with rewards that are comparable to the rewards received by comparable others. Attitudes depend on the relationship of our perceived inputs and outputs relative to comparable others.

The traditional mind-set may presume incompetence, therefore, women may be given fewer opportunities than men to influence groups according to Berger, Cohen, and Zelditch, 1972. As a result, women lack leadership experience.<sup>97</sup> Individuals who desire to achieve status within a group may become handicapped by low "ascribed" roles based upon perceptions of limited capabilities, low potential and dubious credibility until they prove otherwise (Wahrman and Pugh, 1974).<sup>98</sup> Thus, women in general may be perceived as less competent by the research of Deaux and Emswiller.<sup>99</sup>

Combat leadership, for example, except in extreme emergencies, has traditionally been seen as inappropriate for women. If gender role conflicts produce biased judgments, more extensive integration of women into maneuver unit training programs might reduce these biases and allow women to function proficiently in the newly ascribed military role.

With regard to reducing bias, Katz and Stotland defined the key factors in attitude change as the relationships between situational forces and information on the one hand, with the individual's pattern of motives and values on the other.<sup>100</sup> In sum, it is the relationship between incoming information and personality characteristics that leads either to the assimilation or to the rejection of this information.

These theorists consider three kinds of motives, in descending order of urgency: biological drives (hunger, thirst); ego and social drives (self-esteem, approval, family love); curiosity and the need for understanding. Katz determined that the principle of consistency among the cognitive, affective, and behavioral elements of attitudes and the motive patterns is always operating but inconsistencies may be avoided by compartmentalization--a defensive weakening of the link between the various elements. New information that is incompatible with the individual's motives or existing attitudes might be rejected or "put in a deep freeze," so that it will not disturb the existing integration of attitudes. Motives and behavior are assumed to be more powerful determinants of psychological functioning than cognitions and can be extremely important in changing

certain intellectualized attitudes. Ego-defensive attitudes will be relatively susceptible to change through procedures that employ information. A series of experiments, using Katz's "insight procedure," can illustrate this approach. The insight procedure explains to subjects how defense mechanisms operate to repress inconsistent and unacceptable thoughts. It had lasting effects, measured up to six weeks later, in changing the attitudes of the subjects, but other informational methods of attitude change had little effect in the long run. Furthermore, for some of the subjects, who were particularly ego-defensive, the informational approach did not result in attitude change, but the insight approach did as demonstrated in the research of Katz, Sarnoff, and McClintock, 1956.<sup>101</sup> McClintock obtained significant attitude change.<sup>102</sup> Culbertson found such attitudes changing only in the case of those persons who were less ego-defensive, when a role-playing technique was used to change attitudes.<sup>103</sup> In sum, certain attitudes cannot be changed by information or by producing inconsistency, but require the person to be aware of the connections of the attitude object to his structure of motives.

To assume that attitudes are a unidimensional construct is an over simplification. People usually avoid situations in which their values will be challenged and flock to hear communications with which they expect to agree. It appears that the evidence of de facto selectivity is clear. At a point when the individual becomes uncomfortable, people tend to switch from avoidance to seeking more dissonance in order to reorganize their cognition.

Sherif, Sherif and Nebergall described another aspect of attitudes as dependent on the person's level of adaptation.<sup>104</sup> Empirical support for this view was obtained by Atkins, Deaux and Bieri in the discussion of acceptance, rejection, and noncommitment.<sup>105</sup> Acceptance of a communication depends on whether it falls within the audience's latitude of acceptance, rejection, or if noncommittal, it is assimilated; that is, accepted. It is also possible to obtain a boomerage effect in which the attitude may change in the opposite direction from the one advocated. The more ego-involved people tend to reject more positions as Freedman's study points out.<sup>106</sup>

Hazleton argues that women in the Israel military have less options or fewer choices than in the American forces and there has been a significant shift back to

traditional assignments. Although there is an obvious cultural rational for the practice of preventing women from serving in nontraditional roles, the effect discourages professional contact and development of the neighbor, friend, or "buddy" role; a role which was significant in changing attitudes towards blacks in the military. But interaction between two people under circumstances in which both will experience the same outcome or fate, and in which both are working cooperatively toward a shared goal, could also function to solidify rather than reduce traditional attitudes.

For example, research conducted in April 1977 indicated that those West Point upperclassmen assigned to companies without women tended to hold the most traditional attitudes. Speculations as to why these attitudes existed included the possibility that the academy cadet assimilated the top leadership's original opposition to the admission of women. Too late there was a perception that academy officials may have overreacted to the change as evidenced by the amount of time devoted to lectures, surveys and briefings on the subject. Also there was a perception among other cadets and officers, among both men and women, that women may have received inequitable treatment as plebes.<sup>108</sup>

The assumption that the challenge of a smaller manpower pool will increase the female strength of the armed forces (from the current six percent to eleven percent by 1983) gives the middle manager, future decisionmaker a challenging objective. To make the best possible utilization of women can be subjectively interpreted as a change from a traditional mind-set to a contemporary mind-set. Hence, the evolution of a new attitude toward women as combatants is possible and perhaps necessary.

To aid in that evolution, this study provides a baseline for the assessment of future attempts to change middle-career level manager's attitudes toward women. The samples are highly motivated officers, competitive and aspiring toward the most senior levels of military management. Their strength lies in their ability to look at the long-term and determine what will best support an optimum and responsive force composition to sustain a viable national defense posture.

Feminine normalcy has been defined in terms of its distance from the masculine norm--the further the better--and some of the accepted polarities are: active vs. passive; aggressive vs. submissive; creative vs. sustaining; risk-taking vs. security-seeking; strong vs.

gentle and receptive--characteristics that in the early part of the 19th century would have been even more widely viewed as essential to the achievement of adult femininity. Sociologists and psychologists have traditionally agreed on the components of role for both genders. Quite often men perceive that women's limits and capabilities are less than theirs, therefore, what may be considered restrictions for women may not appear so to men. It is a matter of perceived relative assessments.

Various theories have been employed to measure and obtain attitude change of the type that would be required for a successful integration of Army women. Golightly and Byrne employed consonant statements (that is, statements with which the respondents strongly agree) or dissonant statements (that is, statements with which the respondent strongly disagrees) as the method of obtaining reinforcement in one study.<sup>109</sup> Festinger made the principle of selective exposure one of the cornerstones of his theory of cognitive dissonance. Avoidance of dissonance is one of the two basic hypotheses of Festinger's theory. He described a greater tendency to seek consistent information and to avoid dissonant information as dissonance increases up to a point. At that point, when it becomes unbearable, people

will switch from avoidance to seeking more dissonance in order to reorganize their cognition.<sup>110</sup>

Integration of women into nontraditional roles in the military (to include combatant roles) is extremely complex because of these perceptions regarding status, regard and self-esteem benefits.<sup>111</sup> The experience with the integration of black Americans into the armed services, where prolonged association occurred, indicated that the more association white soldiers had with black troops, the more favorable their reaction toward racial integration.<sup>112</sup> However, in this circumstance social contact was encouraged.

On the other hand, a women joining a male group for the first time creates an implicit challenge to the status of masculinity itself--sexually, socially, and intellectually. The conditions in this contact depends largely upon the response of the male to the female. Moskos notes that the majority-minority contacts are characterized by equal status.<sup>113</sup> The atmosphere of incongruent roles, interdependent behavior and common fate as described by Secord and Backman are essential ingredients to the reduction of intergroup prejudice.<sup>114</sup>

Interaction with a person who occupies a role category that is incompatible or incongruent with the

stereotype ordinarily attributed to him or her, results in a reduction of prejudice or traditionalism. The implication is that role incongruency results in cognitive change which, in turn, reduces traditionalism.

But any evidence of failure to perform at levels equal to the traditional men's norm will tend to strengthen the affective traditionalism of male soldiers. Instead of perceiving that females perform well in roles other than the average stereotypical roles, the men would more likely perceive only that women perform more poorly than men, which could very well result in congruent rather than incongruent role performance unless there is a change toward a more egalitarian attitude toward women in nontraditional roles.

The Army must also deal with prejudice. More than two decades ago, Bettelheim and Janowitz pointed out that insecurity is not only caused by the kinds of childhood experiences one has had but largely by loss of status. Insecurity can also occur if one gains status. The person who gained status may feel uncertain about the proper way to behave in order to preserve his status. Thus, Bettelheim and Janowitz point out that it is the "change" in status that is related to insecurity and insecurity is related to prejudice.<sup>115</sup> If insecurity

is related to prejudice, one should be able to reduce prejudice by increasing the self-acceptance of an individual. Rubin affirms that exposure of an individual to persons who participate in groups in which mutual trust and openness are encouraged, further encourages individual self-acceptance and tends to decrease prejudice.<sup>116</sup>

One can identify a class of learned capabilities called attitudes in what Krathwohl calls the "affective domain." All of us possess attitudes of many sorts toward different things, persons, and situations. The effect of an attitude is to amplify an individual's positive or negative reactions toward something and may be indicated by the frequency with which he "chooses" that item in a variety of circumstances. Thus, an individual with a strong attitude toward egalitarianism will indicate agreement toward egalitarianism in other situations; whereas a person with a weaker attitude of this sort will tend to restrict egalitarian responses to fewer situations. The military is generally perceived by society as the forerunner in the establishment of socially approved attitudes.<sup>117</sup> Examples such as social integration or women's rights require respect for other people, cooperativeness, personal responsi-

bility, as well as positive attitudes toward rules and regulations, and an attitude of self-esteem and dignity for all.

A person learns to have preferences for various kinds of roles; he prefers certain people to others, he shows an interest in certain events rather than others. It can be inferred from a set of such observations that the respondent has "attitudes" toward roles, persons, or events which influence the choice of courses of action towards them. Naturally, there are many such attitudes that are acquired outside of the military environment, and many that the military environment cannot appropriately consider relevant to military function. As one possibility, though, military influence might appropriately adopt the objective of establishing positive attitudes toward employment of military women as combatants. Often, too, military influence is successful in modifying attitudes toward behavior that manifests itself in egalitarianism. Considered as a human capability, an attitude is a persisting state that modifies the individual's choices of action. A positive attitude toward women in combat would make the respondent "tend" to choose such a role over other roles (less reluctantly), when such choices are possible. Of course, this does

not mean egalitarianism will always be favored under all circumstances. Rather, it means that the opportunity for a future egalitarian role for women concerning combat may be noticeably higher. If one could observe the respondent over a reasonable period of time, one could study the inclination to select egalitarian roles for women in combat. From such a set of observations, it could be decided whether or not the decisionmaker had a positive attitude toward the specific egalitarian role of women as combatants.

Inferences about the possession of attitudes as obtained by means of the questionnaire, which asked respondents what opinions they had concerning women as combatants, make possible the inference that a particular attitude has been learned, or modified in a particular direction.

The military is still an overwhelmingly male-dominated profession, particularly at the highest administrative levels as well as in many of the operational and combat-related positions. However, as Goldman pointed out, military roles are undergoing change.<sup>118</sup> There is less need for individuals to lead troops and an increasing need for managers and diplomats. This gradually should make more high-status positions available to the growing numbers of military women.

The idea of a women's presence changing the group's identity is not well received. The group would no longer be all-male. The traditions with which we have grown up mean that a woman's presence will be seen and felt (not necessarily thought through) as lowering the social and sexual status of the group membership. Yet, the woman may well advance the group's intellectual status. These are not issues which present themselves in a conscious, clearly thought-through form. They are for the most part emotional, self-esteem issues rather than rational ones.

The tendency toward symbolic attainment of self-fulfilling roles is explicitly included in a theoretical model proposed by McGuire.<sup>119</sup> McGuire assumes that an individual's beliefs or expectations are related to each other according to the rules of formal logic. On the other hand, there is also a tendency for the individual's beliefs to be consistent with his desires and wishes. The individual attempts to minimize the inconsistencies among his beliefs as well as the inconsistencies between his beliefs and desires or wishes. When the individual is made aware of his inconsistent beliefs, he experiences discomfort which possibly results in attitude change. It is possible to decrease salience

of the logical or the wishful system, which will result in different kinds of cognitive change. The experimental evidence concerning McGuire's theory gives partial support to this formulation, but further research is needed to account for some inconsistencies between experimental findings and theoretical predictions in Insko's estimation.<sup>120</sup>

Often much prejudice may exist against allowing women in combat. But when it comes to the actual overt behavior, discriminatory practices are not prevalent, presumably because of the official policies of the military.

Moskos has enumerated the following features of the military establishment that accounted for its rapid and extensive integration of racial minorities.<sup>121</sup> The integration was facilitated by the fact that military organizations are somewhat apart or discontinuous from other aspects of society. Therefore, they have greater control over the change process. In addition, the military has some bureaucratic characteristics that facilitate change. For example, they have hierachial power structures predicated on stable relationships so decisions are not as likely to take into account the personal desires of the members. Also, roles and activities are more defined and specific so there is little room for

expression or individual feelings. At the same time, violations of norms are more visible and there are more methods of social control available in these settings. These same factors should be important in the long-term process of integrating females into nontraditional positions.

The behavioral component of attitudes also can be inferred from observations of the consistencies of a person's behavior in response to situations that have common characteristics. However, there are problems with this approach that may make this work difficult. A person's behavior occurs in part because of his habits, and in part because of norms and roles regarding personal expectations of reinforcement. To measure attitudes from nonverbal behavior we need a controlled environment which prohibits the influence of variables, and this is quite difficult. More specifically, a person may respond to a set of stimuli and not be aware of what he is doing.<sup>122</sup> However, it is an overgeneralization to infer that consistencies in habits leads to consistencies in attitudes. A person might behave quite inconsistently with respect to his attitudes, in order to obtain rewards, to avoid punishment and to gain acceptance from his superiors. This behavior should not be used, there-

fore, as a way to measure attitudes. Attitudes are best measured when it is possible to keep other factors constant. This is most easily done under controlled conditions. Triandis asserts that if we can observe consistencies in behavior in spite of extreme variation in habits and norms as well as expectations of reinforcement, we can employ the behavioral observations to infer the person's behavioral intentions. McGuire reviews several studies which suggest that those who control large rewards also control behavior. Most of the evidence is generally in agreement with McGuire's analysis.<sup>123</sup>

Attempts to influence attitudes must deal with two contradictory, theoretically derived predictions that can be made concerning the effects of fear. On the one hand, fear is a drive and, therefore, will tend to multiply the tendency to comply with the recommendations of the message. On the other hand, fear is also a cue that elicits avoidance of the source or the message. When the degree of fear is relatively high, we should expect a relationship in which the larger the fear, the greater the amount of change. At rather high levels of fear, however, the reception of the message will decrease, since the subject will start defending himself from such noxious stimuli, and without reception there can be no

yielding, hence, there will be a sharp decrease in attitude change. This analysis, which was presented by McGuire seems to be well supported by recent empirical research results.<sup>124</sup>

It is generally understood that people become extremely anxious when they have to deal with unknowns. Anxiety does arise when one is uncertain of what action to take, especially under the added stress of critical time constraints during situations requiring rapid decisionmaking. The appropriateness of the role one must fill in a given setting is an elusive, shifting question. Different actors in different roles, different people to be dealt with, different tasks to be accomplished; require different roles and different degrees of responsibility. The role of a subordinate is a universal role but it can be filled using one of a variety of behavioral styles, e.g., the provider and the dependent relationship. With the provider, one has a sense of someone who is active, competent, who tries to assist, who uses his initiative; with the dependent one has a sense of passivity, of someone who follows rules and obeys the orders of the provider. But one might fill the role of the subordinate or dependent equally well in the style of a colleague, or even an equal provider.

Mann compared three procedures: the regular fear-arousing procedure, a cognitive procedure, which required the subject to role play a debater against the issue, and a shame-arousing procedure in which the subject took the role of a helpless victim involved in the issue.<sup>125</sup> The fear arousing procedure was by far the most effective in changing attitudes. McGuire argues that the higher the chronic level of anxiety of the subjects, the greater their concern with the issue and the more complex the message that is presented to them, though the reduced fear approach may be optimal.<sup>126</sup> If there is more fear than the amount corresponding to the optimal point, there will be less attitude change.

Senior managers must ask that performance evaluation systems be designed to identify and reward a manager's success at training and promoting women in nontraditional roles. When a person experiences a rewarding state of affairs in association with an attitude object, his affect toward the object will become more favorable. Conversely, if the experience is punishing, the person will change his affect in a negative direction. A major research program that explored such a theoretical expectation was initiated by Hovland at Yale University.<sup>127</sup>

In a related vein, Morris Janowitz postulated the theory that the rise of the military manager has meant that greater effort has been exerted among officers to keep abreast of intellectual currents outside the profession.<sup>128</sup> "The military profession is more than an occupation; it is a complete style of life."<sup>129</sup> Women with traditional domestic work identities are often assumed to attach less commitment to career aspirations. "In the broadest terms, the professional soldier can be defined as a person who has made the military establishment the locust of his (or her) career."<sup>130</sup>

Campbell deals with behavior in similar terms. His concept of behavior is described as having different thresholds.<sup>131</sup> The threshold of action varies with different kinds of action. We may feel very negatively about an issue, but acting in opposition may be too costly. If we conceive of affect as the energizing component and of cognition as the directive component of behavior, the behavioral intention may require not only some cognitive elements in support of the action but also a substantial amount of affect consistent with the action before strong resistance, or inhibitions are overcome. The foregoing argument suggests that the three components

of attitude may change at different rates and in different degrees. However, there are strong tendencies toward consistency among these components. These tendencies can be found at three levels; consistency among cognitive elements, affective-cognitive consistency, and affective-cognitive-behavioral consistency. Attitudes change through direct or indirect experience.

Direct experience with the attitude object usually changes all of the components of attitude; indirect experiences typically change the cognitive or behavioral components, since they are usually informational or normative. Perceptual theories are directly relevant to understanding how we learn to make attitudinal responses to the attitude object. The course of attitude change is also influenced by the particular functions that each attitude performs for the individual.<sup>132</sup>

To summarize the present argument, behavior is a function of attitudes, norms, habits, and expectancies about reinforcement. When all four factors are consistent, there is consistency between attitudes and behavior; when the four factors are inconsistent, there is much less consistency. In sum, attitudes alone do not predict behavior; attitudes together with norms and habits do predict behavior as shown by Sugar's research.<sup>135</sup>

Other mid-observers and sociologists such as Janowitz argue that buddy relationships were established and maintained within the context of military organization as a social system.<sup>134</sup>

The major point of the preceding discussion is that each of the three components of attitude develops under the influence of somewhat different variables. Attitudes are learned either from direct experience or from other people. Direct experience is most relevant to the development of the cognitive and affective components; other people close to individuals (family, friends) are most relevant to the behavioral component. The three components interact and there is a tendency for them to become as consistent as possible. Conversely, other people can influence our behavioral component, as well as our feelings about various attitude objects. Behavior is influenced by those sanctions that influence personal norms and values. This is why the behavioral component of attitudes is much more rigidly related to social norms than is either the cognitive or affective components of attitude.

## CHAPTER II

### ENDNOTES

<sup>1</sup>"Sex Barriers: It's Falling Fast in the Military," U.S. News & World Report, June 28, 1976, pp. 53-54. (Hereafter referred to as "Sex Barriers.")

<sup>2</sup>Edwin H. Simmons, The United States Marines: The First Two Hundred Years, 1775-1975 (New York: Viking Press, 1976), p. 224.

<sup>3</sup>"Sex Barriers," p.54.

<sup>4</sup>Legend Catherine B. Avery (ed.), Greek Mythology and  
42-43 New York: Appleton-Century Crofts, 1972, pp.

<sup>5</sup>Ibid., pp. 102-103.

<sup>6</sup>George Patarick Welch, Britannia: The Roman Conquest and Occupation of Britain (Middletown, Connecticut: Wesleyan University Press, 1963), p. 100.

<sup>7</sup>Ibid., p.101.

<sup>8</sup>C. G. Cruickshank, Elizabeth's Army, 2d ed. (London: Oxford University Press, 1966), p. 230.

<sup>9</sup>Ibid., p. 231

<sup>10</sup>Legend Edgar O'Ballance, The Red Army (New York: Praeger, 1964), p. 98.

<sup>11</sup>Ibid., pp. 98-99.

<sup>12</sup> Generalmajor Hellmuth Reinhardt, Personnel and Administration, Project 2b, Part VI: German Woman in War Service During World War II, MS #P-027, Koenigstein, 16 May 1949. Translated and edited by H. Heitman, Headquarters, European Command, Historical Division APO 403, 15 November 1949 - Daniel T. Murphy, MAJ, INF, Ch., Operational History (German Br), p. 156.

<sup>13</sup> Ibid., Appendix 206.

<sup>14</sup> "Women in Combat????," DA Spotlight, August 2, 1976, p. 2. (Hereafter referred to as "Women Combat.")

<sup>15</sup> Edgar O'Ballance, The Red Army of China: A Short History (New York: Praeger, 1963), p. 212.

<sup>16</sup> Ibid.

<sup>17</sup> Thomas M. Forster, The East German Army (London: Allen & Unwin, 1967), p. 119.

<sup>18</sup> "Women Combat," p. 3.

<sup>19</sup> Christopher Tunney, Biographical Dictionary of World War II (New York: St. Martin's Press, 1972), pp. 26-27.

<sup>20</sup> Ibid., p. 168

<sup>21</sup> Ibid., p. 202.

<sup>22</sup> Ibid.

<sup>23</sup> Larry Collins and Dominique Lapierre, O Jerusalem! (New York: Simon and Schuster, 1972), pp. 224-225. (Hereafter referred to as O Jerusalem!)

<sup>24</sup> Israeli Defense Force, Chen (Tel Aviv, 1969), pp. 3-4.

<sup>25</sup> Ibid., p. 10.

<sup>26</sup> Ibid., p. 12.

<sup>27</sup> O Jerusalem.

<sup>28</sup> Frantz Fanon, A Dying Colonialism (New York: Grove Press, 1965), p. 48.

<sup>29</sup> Ellen C. Clayton, Female Warriors . . . (London: Tinsley Brothers, 1879).

<sup>30</sup> Mattie E. Treadwell, United States Army in World War II, Special Studies, The Women Army Corps, Part 2 of Volume 8 (Washington, D.C., Department of the Army, Office of the Chief of Military History, 1954), p. 5. (Hereinafter referred to as WAC).

<sup>31</sup> Ibid., p. 8.

<sup>32</sup> Background Study: Use of Women In The Military, Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs, and Logistics, May 1977, p. 3. (Hereinafter referred to as Use of Women).

<sup>33</sup> WAC, p. 148.

<sup>34</sup> WAC, p. 196.

35 U.S. Congress, 91 Stat 323, Sec 3.3, House, Title III-Active Forces, Department of Defense Appropriation Authorization Act, 1978, Pub. L. 95-79, 95th Cong., 2d sess., 1977, H.R. 5970; and U.S. Senate, "Military Procurement Authorization, 1978," Congressional Record 123, No. 84 (17 May 1977): S 7777-S 7831.

36 Use of Women.

37 Office of the Deputy Chief of Staff for Personnel, "Comparative Data Collection Effort," (Study conducted July 1977 through March 1978).

38 U.S. Congreee, Senate, Committee on Armed Services, Fiscal Year 1978 Authorization for Military Procurement, Research and Development and Active Duty, Selected Reserve and Civilian Personnel Strengths, Hearings (25 January and 24 February) on Part 1, Authorizations, of S. 1210, 95th Congress, 1st Sess., 1977.

39 "MILPERCEN Study," (Study conducted February 1977 through September 1977).

40 U.S. Congress, House, Department of Defense Appropriation Authorization Act, 1978, Pub. L. 95-79, 95th Congress, 2d Sess., 1977, H.R. 5970.

41 Katie Dean, "Women Cadets Measure Up To Male Classmates," Denver Post, May 31, 1977, p. 15; R. F. Priest and others, "Differences Between the Characteristics of Men and Women New Cadets, 1980," West Point, Office of the Director of Institutional Research, Report #77-010, March 1977; R. F. Priest and others, U.S. Military Academy, "Women Cadets at the United States Military Academy," Paper delivered at the 72nd Annual Meeting of the American Sociological Association, Chicago, Illinois, September 9, 1977; J. M. Savell and J. C. Woelfel, "A Seven-item Scale to Measure Sex-Role Attitudes in the Army," Unpublished manuscript, Army Research Institute, January 1977; "Studies Under Way: Army To Consider Opening Close Combat Units to Women," Army Times, September 26, 1977, p. 21.

<sup>42</sup>Information on the Air Force program is from "Use of Women", pp. 41-45; information on Navy from Carol H. Fuller, "The Role of Women in the Navy: A Study of Attitudes and Scale Development," Washington, D.C.: Navy Personnel Research and Development Laboratory, June 1973.

<sup>43</sup>J. L. Janis, and C. N. Rausch, Selective Interest in Communications That Could Arouse Decisional Conflict: A field study of participants in the draft-resistance movement, Journal of Personality and Social Psychology, 1970, 14, 46-54.

<sup>44</sup>"Tomorrow," U.S. News and World Report, November 28, 1977, p. 20.

<sup>45</sup>Department of the Army, "MILPERCEN Study, Utilization of Women in the Army--INFORMATION MEMORANDUM," Office of the Deputy Chief of Staff for Personnel, Washington, D.C. (DAPE-MPE-CS), pp. 2-5.

<sup>46</sup>Department of the Army, p. 2 - "DCS PER Decisions on the Final Task Force Report."

<sup>47</sup>U.S. Army Training and Doctrine Command, "Women Content in Units". (Study conducted December 1974 through April 1972).

<sup>48</sup>Department of the Army, Office of the Deputy Chief of Staff for Personnel, "Women in the Army Study." (Study conducted January 1976 through December 1976).

<sup>49</sup>U.S. Army Military Police School Training Center, "Basic Initial Entry Training (BIET)--Test Report (December 30, 1976; processed), pp. 1-1 to 1-5, 3-7. (Study conducted 17 September 1976 through 11 November 1976).

50 Department of the Army, Military Personnel Center, "MTLPERCEN Study," (Study conducted February 1977 through September 1977).

51 Department of the Army, Comptroller, "Cost Analysis." (Study conducted September 1977 through March 1978).

52 U.S. Army Training and Doctrine Command. U.S. Institute For Environmental Medicine, "Physical Strength and Performance Standards," (Study conducted March 1976 through July 1978).

53 U.S. Army Research Institute for the Behavioral and Social Sciences, "MAX WAC Test," (Study conducted March 1976 through 1 October 1977).

54 Martha M. Earl, comp., Bibliography of Women: A Survey . . . USMA Library Bulletin No. 16 (West Point, New York: USMA, 1976); Robert F. Priest and others, Women Cadets at the USMA, (Paper delivered at the 72nd Annual Meeting of the American Sociological Association, Chicago, Illinois, September 9, 1977; Office of Director of Institutional Research and Office of Military Leadership. Differences Between Characteristics of Men and Women New Cadets--Class of 1980 (West Point, New York: USMA, 1977); Office of the Director of Institutional Research, Cadet Attitudes Toward the Admission of Women to West Point (West Point, NY: USMA, 1976); Office of the Director of Institutional Research, Analysis of Spontaneous Cadet Comments on the Admission of Women (West Point, New York: USMA, 1976); Office of the Director of Institutional Research, Cadet Attitudes Toward Women--1975 (West Point, New York: USMA, 1976); Office of the Director of Institutional Research, A Comparison of Faculty and Cadet Attitudes Toward Women, (West Point, New York: USMA, 1976); Office of the Director of Institutional Research, Cadet Perception of Inequitable Treatment During Cadet Basic Training 1976, (West Point, New York: USMA, 1977); Office of the Director of Institutional Research, The Intergroup Contact Hypothesis as Applied to Women at West Point (West Point, New York: USMA, 1977); Office of the Director of Institutional Research, New Cadets and Other College

54 (cont) Freshmen Class of 1980, (West Point, New York: USMA, 1977); Office of the Director of Institutional Research, The First Class Questionnaire, Class of 1977, (West Point, New York: USMA, 1977); Office of the Director of Institutional Research, Characteristics of the Class of 1980, (West Point, New York: USMA, 1976).

55 Use of Women.

56 Ibid., pp. 41-45.

57 Ibid., p. 27.

58 Ibid., pp. 38-39.

59 Kenneth P. Werrell, "Should Women Be Permitted In Combat?" Air University Review, Vol XXVIII, No. 5, July-August 1977, p. 66.

60 Ibid., p. 68.

61 E. Churchill, et al., "Anthropometry of Women of the U.S. Army--1977: Report No. 2 - The Basic Univariate Statistics, Technical Report Natick/TR-77/024," (U.S. Army Natick Research and Development Command, Natick, Massachusetts, 1977).

62 James A. Peterson, et al., "Summary Report on Project 60: A Comparison of Two Types of Physical Training Programs in the Performance of 16 to 18-year old Women," United States Military Academy, May 3, 1976 (processed), Table I, pp. 19-20.

63 Women have more stress tolerance, endurance, balance (lower center of gravity makes a better marksman), see Ashley Montagu, The National Superiority of Women, Revised Edition, The MacMillan Company, New York: Collier MacMillan Ltd, London, 1953, pp. 81-125. (Hereinafter referred to as "Superiority").

64 United States Military Academy, West Point, New York, Differences Between Characteristics of Men and Women New Cadets Class of 1980, Office of the Director of Institutional Research and Office of Military Leadership, March 1977, p. 7.

65 Ibid.

66 Ibid., p. 7.

67 "Superiority", pp. 81-125.

68 Ibid., p. 240.

69 Ibid., p. 208.

70 Ibid., p. 250.

71 Gerner Lerner, The Female Experience: An American Documentary (Indianapolis: Bobbs-Merrill, 1977), p. 59.

72 Lloyd L. Laubach, John T. McConville, and Edmund Churchill, Webb Associates; Robert M. White, U.S. Army Natick Research and Development Command, Anthropometry of Women of the U.S. Army--1977, Report No. 1 - Methodology and Survey Plan, Technical Report Natick, Massachusetts, 1977.

73 E. Churchill, et al., Anthropometry of Women of the U.S. Army--1977, Report No. 2 - The Basic Univariate Statistics, Technical Report Natick/TR-77/024, U.S. Army Natick Research and Development Command, Natick, Massachusetts, 1977.

74 Martin Binkin and Shirley J. Bach. Women and the Military. Washington: Brookings Institution, 1977. p. 55. (Hereinafter referred to as "Women Military").

75 Kate A. Arbogast, "Women in the Armed Forces: A Rediscovered Resource," Military Review, November 1973, pp. 9-19.

76 LTC John H. Batts, et al., "The Roles of Women in the Army and Their Impact on Military Operations and Organizations," USAWC Military Research Program Paper (Pennsylvania: U.S. Army War College, Carlisle Barracks, 23 May 1975).

77 U.S. Congress, Senate, "Military Procurement Authorizations, 1978," Congressional Record, 123, No. 84 (17 May 1977): S 7777-S7831.

78 "MAX-WAC Study Finds Women Can Fill 35 Percent of Combat Support Units," Army Times, 14 November 1977, p. 37, by Jay Finegan, Times Staff Writer. (Hereinafter referred to as "MAX-WAC").

79 U.S. Army MILPERCEN, "Survey of the Women's Army Corps", as of 30 Nov 67.

80 U.S. Department of Commerce, Bureau of the Census, A Statistical Portrait of Women in the U.S., Current Population Reports Special Studies, Series P-23, No. 58, 1976, p. 3.

81 Ibid.

82 "Women Military," pp. 55-70.

83 Use of Women, App. B-6.

84 Department of the Army Message, DTG 261510 Jan 78. Increased Female Accessions.

85 "MAX-WAC."

86 Ibid.

87 "MAX-WAC."

88 "Women Military," p. 106.

89 Department of the Army Message, DAPE-MPE, 032227 March 1978. "Rogers Sends, Women in the Army."

90 George H. Quester, "Women in Combat," International Security, Spring, 1977, Vol., No. 4, p. 91.

91 M. Fishbein, Attitude and the Prediction of Behavior, in M. Fishbein (Ed.), Readings in attitude theory and measurement (New York: Wiley, 1967), pp. 477-492.

92 H. C. Triandis, M. Fishbein, E. Hall, A. V. Shanmugam, Y. Tanaka, "Affect and Behavioral Intentions, Modern Trends of Psychology." Papers in honor of Professor Kuppuswamy (Bombay: Manaktala and Sons, 1967), p. 5

93 Fishbein (Ed), Readings in Attitude Theory and Measurement (New York: Wiley, 1967), p. 37.

94 A review of these theorists is found in H.C. Triandis, Attitude and Attitude Change. Wiley Series in Social Psychology, (Wiley Foundation of Social Psychology Series, John Wiley and Sons, Inc., 1967), p. 59

95 R. L. Rosnow, and E. J. Robinson, Experiments in Persuasion, (New York: Academic Press, 1967).

96 J. S. Adams, "Inequity in Social Exchange," in L. Berkowitz (Ed.), Advances in Experimental Social Psychology, Vol I, (New York: Academic Press, 1967), pp. 267-300.

97 J. B. Berger, B. Cohen, and M. Zelditch, "Status Characteristics and Social Interaction," (American Sociological Review, 1972), No. 37, pp. 241-255.

98 R. Wahrman, and M. D. Pugh, "Sex, Nonconformity and Influence" (Sociometry, 1974), No. 37, pp. 137-147.

99 K. Deaux, Women in Management: Causal Explanation of Performance. Presented at symposium on "The Professional Woman," American Psychological Association Annual Meeting, New Orleans, 1974; and K. Deaux, and T. Emswiller, "Explanations of Successful Performance on Sex-Linked Tasks: What is Skill for the Male is Luck for the Female," Journal of Personality and Social Psychology, 1974, No 29, pp. 80-85.

100 D. Katz, and E. Stotland, "A Preliminary Statement to Theory of Attitude Structure and Change," in S. Koch (Ed.), Psychology: A Study of a Science. (New York: McGraw-Hill, 1959).

101 D. Katz, I. Sarnoff, and C. McClintock, "Ego Defense and Attitude Change," Human Relations, 1956, No. 9, pp. 27-46.

102 C. McClintock, "Personality Syndromes and Attitude Change," Journal of Personality, 1958, No 26, pp. 479-493.

103 F. M. Culbertson, "The Modification of an Emotionally Held Attitude Through Role Playing," Journal of Abnormal and Social Psychology, 1957, No. 54, pp. 230-233.

104 C. W. Sherif, M. Sherif, and R. E. Bebergall, Attitude and Attitude Change (Philadelphia: Saunders, 1965).

105 A. L. Atkins, K. K. Deaux, and J. Bieri, "Latitude of Acceptance and Attitude Change: Empirical Evidence for a Reofrmulation," Journal of Personality and Social Psychology, 1967, No. 6, pp. 47-54.

106 J. Freedman, "Involvement, Discrepancy and Change," Journal of Abnormal and Social Psychology, 1964, No. 69, pp. 290-295.

107 Lesley Hazleton, Israeli Women (Simon and Schuster, 1977).

108 Alan G. Vitters and Nora Scott Kinzer, "Women at West Point: Change Within Tradition." Military Review, Vol VLIII, No. 4, April 1978, pp. 20-28. Robert Priest, "Cadet Perceptions of Inequitable Treatment During Cadet Basic Training 1976," USMA Report Number 77-012, West Point, N.Y., March 1977, pp. 3-5.

109 C. Golightly, and D. Byrne, "Attitude Statements as Positive and Negative Reinforcements," Science, 1964, No. 146, pp. 798-799.

110 L. Festinger, A Theory of Cognitive Dissonance (Stanford, CA: Stanford University Press, 1957).

111 W. J. McGuire, and S. Millman, "Anticipatory Belief Lowering Following Forewarning of a Persuasive Attack," Journal of Personality and Social Psychology, 1965, No. 2, pp. 471-479.

112 Samuel A. Stouffer, Edward A. Suchman, Edward A. Star, Shirley A. and Robin M. Williams, Jr., Studies in Social Psychology in World War II, Vol. I: "The American Soldier: Adjustment During Army Life," (Princeton: Princeton University Press, 1949).

113 Charles C. Moskos, Jr., "Minority Groups in Military Organization," in Roger Little (Ed.) Handbook of Military Institutions (Beverly Hills: Sage Publications, 1973).

114 P. F. Secord, and C. W. Backman, Social Psychology, (New York: Harper and Row, 1969).

115 B. Bettleheim and J. Janowitz, Dynamics of Prejudice, (New York: Harper, 1960).

116 I. M. Rubin, "Increased Self-Acceptance: A Means of Reducing Prejudice," Journal of Personality and Social Psychology, 1967, no. 5, pp. 233-238.

117 Review of Education and Training of Officers' Team, "Officer Education in the 80's and 90's," Major General Benjamin L. Harrison and Major Theodore J. Crackel. (Unpublished report, Washington, D.C.: Headquarters, Department of the Army, 29 March 1978), p. 4.

118 Nancy Goldman, "The Utilization of Women in the Military," The Annals, Vol. 406 (March 19 ): pp. 107-116.

119 McGuire, "Cognitive Consistency and Attitude Change," Journal of Abnormal and Social Psychology, 1960, and "A Syllogistic Analysis of Cognitive Relationships," No. 60, pp. 345-353.

120 C. A. Insko, "Verbal Reinforcement of Attitudes," Journal of Personality and Social Psychology, 1965, No. 2, pp. 621-623; and Theories of Attitude Change, (New York: Appleton-Century-Crofts, 1967), pp. 105-110.

121 Moskos, "Minority Groups in Military Organization," in Roger Little (Ed.), Handbook of Military Institutions (Beverly Hills: Sage Publications 1973).

122 Triandis, "Attitude and Attitude Change." Wiley, Series in Social Psychology, (New York: John Wiley and Sons, Inc.), pp. 54-55.

123 McGuire, "Cognitive Consistency and Attitude Change," Journal of Abnormal and Social Psychology, 1960, No. 60, pp. 345-353.

124 McGuire, "The Nature of Attitudes and Attitude Change," in Gardner Lindze and Elliott Aronson (Eds.) The Handbook of Social Psychology. (Cambridge, Mass: Addison Wesley, 1969), pp. 136-314; "Direct and Indirect Persuasive Effects of Dissonance-producing Messages," Journal of Abnormal and Social Psychology, 1960, No. 60, pp. 354-358.

125 L. Mann, "The Effects of Emotional Role Playing on Smoking Attitudes and Behavior," Journal of Experimental Social Psychology, 1967, No. 3, pp. 334-348.

126 McGuire, "Theory-oriented Research in Natural Settings," in Sherif and Sherif (Eds.), Interdisciplinary Relationships in the Social Sciences. (Chicago; Aldine, 1968); The Current Status of Cognitive Consistency. (New York: Academic Press, 1966).

127 M.J. Rosenberg and C. I, Hovland (Ed.), Attitude Organization and Change, (New Haven, Connecticut: Yale University Press, 1960), pp. 65-111.

128 Morris Janowitz, The Professional Soldier, A Social and Political Portrait, (Glencoe: The Free Press, 1960), pp. 54, 175, 430.

129 Ibid., p. 175.

130 Ibid., p. 54.

<sup>131</sup> D. T. Campbell, and R. A. Le Vine, "An Ethno-centrism and Intergroup Relations," in R. P. Abelson, E. Aronson (Eds.), Theories of Cognitive Consistency: A Sourcebook (Chicago: Rand McNally, 1968), pp. 551-564.

<sup>132</sup> Robert F. Priest, Cadet Attitudes Toward Women 1975, Report No. 4F1.00-76-015, Project No. 211AB, Office of the Director of Institutional Research, United States Military Academy, West Point, New York, May 1976.

<sup>133</sup> J. Sugar, An Analysis of the Relationship of Attitudes and Behavior, NSF Undergraduate Research Participation, Final Report, University of Illinois, 1967.

<sup>134</sup> Janowitz, The New Military in Changing Patterns of Organizations, (New York: Russell Sage Foundation, 1964), p. 207.

## CHAPTER III

### METHODOLOGY

This chapter will discuss the methodology to include the research design, sample selection, instrument administration and the data analysis.

#### Research Design

This research has two purposes: description and prediction. The data gathering method can be classified as a self-administered, self-report, descriptive survey and the data processing methods as statistical experimentation including frequency distributions, chi square tests of the significance of relationships, Cramer's index of associative strength, summaries and cross tabulations.

This research, though original in design, used variants of established attitudinal measurement techniques. Several comprehensive summaries of attitude and opinion research were very useful with regard to the design and methodology. Bryant's stratification system was used in the design and techniques.<sup>1</sup> A similar framework by Kish used the survey method for data gathering and processing of the results.<sup>2</sup> Further

details of the data gathering and stratification procedures were adapted from Cochran's work.<sup>3</sup> The research design for attitude measurement by Oppenheim provided valuable direction in the quantification and qualification of data by providing concrete specifications for improvements to the research instrument.<sup>4</sup> Care was taken to simplify as many elements of the survey as possible, for example, the sampling procedure, the administrative instructions, the attitude scale technique, and the item selection and form.

#### Sample Selection

The sample was drawn from the student officers attending the 1977-78 Regular Course at the U.S. Army Command and General Staff College. Prior to arrival at the College each student officer provided certain information regarding his military service. The data included, but were not limited to, name, rank, service number, component, branch of service, years of service, and types of assignments. These data generally followed the schedule of demographic variables shown in Appendix B. Using this information, the College assigned each student to one of 22 sections. A typical student section had 55 officers with a representative

mix regarding age, rank, branch, and experience. Any one of the class sections was considered to be representative of the population and thus facilitated selection of a sample group.

Since the College had assigned a representative mix of officers to each section, every section contained some individuals who were members of subpopulations that were subject to exclusion. The group selected for sampling had the following characteristics:

1. All were male officers of the Active Army who could be expected to become future decisionmakers affecting the role of Army women.
2. All were in the grade of captain, major, or lieutenant colonel.
3. All had been professional Army officers for at least eight years.
4. All occupied a common status with the object group as military members.
5. All were concurrently pursuing the same military task (student) with the same purpose and goal, and distracting military details were minimal.

Four limitations were introduced to enhance sample homogeneity. They were the exclusion of the following four categories of officers:

1. Air Force, Navy, and Marine Corps officers.

The force composition by gender in these arms of service has been at a significant variance with that of the Army. Hence, the experience and exposure of these officers to military women have been different from those of Army officers.

2. Women officers. Although they may be military decisionmakers within the next decade, they represented a statistical minority. Further, this writer assumed that their views would be at sharp variance with those of the men.

3. Reserve component officers. For the purposes of this study, they do not represent future decision-makers in the Active Army.

4. Allied officers. They do not represent the typical or representative views of future decision-makers concerning American women as combatants.

Allowance was made for the exclusion of these 53 Sister Service officers, 15 female officers, 4 Reserve Component officers, and 94 Allied officers among the population of 996 officers.

The design called for a sample size of 250 male officers from the population to provide a reliable relationship between the sample and the population. A

random number table was used to insure statistical precision, to give the principle of randomness a chance to work, and to provide a sample assumed to be equal, within chance limits, in all possible characteristics. A separate random start number was selected from the random number generator table, for each student section. Beginning with a new random start number for each section, the systematic random method was used to draw the total sample.<sup>5</sup> This process was chosen to avoid any bias which may have been introduced through the planned stratification of the population based upon demographic characteristics. This procedure, which controls extraneous demographic variables, was applied in the sample selection to prevent possibly confounding results.

#### Instrument Design

The item content methodology closely followed that used at the U.S. Army Military Academy. In August 1975, eleven months before the integration of women into the Corps of Cadets, the Academy surveyed the attitudes of cadets toward women in society, in the Army and at West Point. Some items were adapted from that unpublished study of the attitudes of the cadets

toward the possible admission of women. In other cases specific statements from other surveys were modified for use in this study.<sup>6</sup>

The major content areas selected deal primarily with the following four topics: traditional women's roles in general, women in civilian employment, women in the Army, and women as combatants.

Small sets of items related to women as civilian managers, or with personal traits attributed to gender were selected from either Broverman or Seward and Larson.<sup>7</sup> These items were included because of their presumed relevance to the issues of integrating women into maneuver units with combat missions. Items were included from both the traditional family ideology or mind-set as well as the contemporary mind-set or expanded social role for women. Other items were modified from the conventional social role for women by Ernhardt and Loewinger;<sup>8</sup> the women's liberation movement items were adapted from Tavris;<sup>9</sup> women's ideology items were tailored from items of Mason and Bumpass;<sup>10</sup> items on feminist issues were constructed from personal interviews as well as items suggested by Gurin's research on internal control of reinforcement.<sup>11</sup> These were used in the research as survey items.

In addition, items were selected from published research studies done by the Army Research Institute for the Behavioral and Social Sciences. The modification of the West Point items and Army Research Institute items provided a reasonably reliable means for predicting in advance, which items would be relevant and optimally sensitive in repeated tests over several replications of such an attitude study. <sup>12</sup>

Various other pertinent sources were used to develop the item content into a set of 57 statements of beliefs concerning roles of women in society, in the military and in combat. The sources included an outline of current issues and important implications of expanding roles for women to include combat; a content analysis of numerous recent news articles and published attitude research documents relating to military women and equal opportunity for women; as well as interviews with Command and General Staff College students and faculty members. After sorting the items to eliminate excessive redundancy, items were reviewed by selected faculty members and thesis committee members as well as the Fort Leavenworth Field Office of the Army Research Institute. Items were edited to eliminate ambiguous meaning. Those items which could have elicited a

spuriously high percentage of agreement or disagreement were reviewed for balance before their inclusion in the survey.

Ten attitude questions were identified as criterion questions to measure USACGSC student attitudes toward women as combatants. These criterion questions provided a frame of reference for the other forty-seven questions and were termed "marker variables" just as in the West Point 1975 study. Demographic variables concerning personal descriptors, (i.e., source of commission, age, education, etc.), were included as relevant background predictors of student attitudes toward women in combat.

#### Scale Making

A Likert-type scale of briefly declarative statements, followed by an intensity checklist of strongly agree, agree, undecided, disagree, and strongly disagree was designed to elicit responses to content and intensity aspects of attitude simultaneously. The items were assigned a five-point response scale ranging from: (1) agree strongly to (5) disagree strongly. Two alternative forced-choice responses were used for three demographic items. The measurement of intensity

of feeling along with direction of content in a single item did not necessarily introduce any distinguishable form of spuriousness.<sup>13</sup> Although the sample's beliefs about women were measured in a manner similar to the West Point (1975) attitude study, it is beyond the scope of this study to make any assumptions or comparisons. It was not assumed that there would be any similarity between the results of the West Point surveys that could be related to the Command and General Staff College results.

The data of this research are of two kinds: primary and secondary data. The responses to the questions by the respondents are one type of primary data. The demographic responses to the questionnaire comprise another type of primary data. The published studies and texts and the unpublished dissertations and theses dealing with attitude measurement provided the source for secondary data for this research.

Comparable survey data from other military samples will not be addressed in this research in view of the critical time constraints. Nevertheless, this research does serve as a baseline for the evaluation of further attitude change among middle-career level military managers, without reference to the findings of comparable survey data from other military samples.

### Pilot Work

A subjective evaluation was accomplished by distributing the questionnaire to fifteen individuals who were members of the College faculty, staff, and student body and local and distant experienced researchers. They provided great help in devising the actual wording of items and in eliminating ambiguities, difficulties, and bias. The cover letter was also piloted in an attempt to both reduce the possibility of nonresponse by overburdening respondents as well as to facilitate accurate analysis.

### Conduct

### Data Gathering

Since the sample was small ( $N=250$ ), the use of personnel other than this writer as a survey administrator was not necessary. Each respondent received the questionnaire and administrative instructions (see Appendix C) on the same date. The number in parenthesis indicates the number of questionnaires distributed.

The educational philosophy of the College leaned heavily toward graduate level and criterion referenced instruction which amalgamated different modes and styles of instructional techniques and procedures. Assembly and control of the sample group therefore, posed a problem

in that a fixed time that did not interfere with the established class schedules could not be set. So, the survey was not administered in one place. It is recognized that appreciable environmental differences became an uncontrolled variable that may have introduced bias. Some respondents answered in the library, some in the classroom environment, and others at home. For example, an individual who answered the questionnaire at home may have been influenced by the domestic setting which could have affected his mind-set.

#### Instructions to Respondents

Approval of the Class Director to administer a survey to the student body was obtained in accordance with prescribed policy. This writer placed a questionnaire in the student distribution box of each member of the sample group. Respondents were asked to complete the instrument as soon as possible by marking their answers on the answer sheet furnished. No technical terms were used in the covering letter or the questionnaire.

#### Criteria for Admissibility of Data

Only 132 questionnaires which were completed in accordance with the published instructions were used.

Admissible data included all usable questionnaires to include those submitted after the imposed suspense date. The researcher is aware of the possibility of bias considering that the more interested people are in the subject of the questionnaire, the more likely they are to fill in and return even lengthy questionnaires.<sup>14</sup> Nevertheless, since the student body was under critical time constraints from numerous end-of-term requirements, and the survey was presented near the beginning of the Christmas Holiday, it was felt that those students who were seriously interested in providing their considered judgments might have taken more time and therefore should be included for the fullest representation of the entire sample.

Table 1 indicates distribution of the distributed questionnaires.

TABLE 1  
DISPOSITION OF QUESTIONNAIRES

<u>Questionnaires</u>	<u>Number</u>	<u>Percent</u>
Useable	132	53
Defective	29	12
Returned	161	64
Not returned	89	36
Total distributed	250	100

Responses to similar surveys are generally poor. Returns of less than 40 or 50 percent are common. Higher percentages are rare, at best; the researcher must be content with returns as low as 50 or 60 percent.<sup>15</sup> Therefore, it was felt that the 64 percent response was more than adequate.

Scale Scoring

The research included samples from a universe of items which could be studied profitably by means of a scale analysis. The universe is scalable and can be broken down into scaled subuniverses. A method developed by Likert was used to give the attitude statements a value by a statistical procedure that employs the data from the sample.<sup>16</sup>

The attitude scales were constructed by grouping items into categories of role perception, social beliefs, traditional versus contemporary viewpoints and job appropriateness. The responses to the demographic variables represented normal ordering or an inferred graduated response sequence; therefore, response values were assigned from 1 through 5 as applicable.

On the 5-point response continuum, an arbitrary value scale of 5, 4, 3, 2, 1 from left to right was set for all positive mind-set items. All items throughout the questionnaire concerned with traditionally negative mind-sets were set in the negative sense (1,2,3,4,5). Strong agreement with any positive statement or reaction gained a score of 5, whereas strong disagreement gained one point on the positive scale. Strongly intolerant persons were expected to strongly agree or agree with all or most of the positive items and reactions. Their high agreement would mean high scores. Those with a preponderance of selection showing disagreement would have low scores on the positive scale.

## Tabular Description

### Sample

Appendix D shows the results of the questionnaire for all 57 items.

### All Items

The raw frequency distributions (Shown in Appendix D) represent the number of cases, or distribution of cases, falling into different categories. These distributions represent a one-dimensional perspective which is the simplest method of statistical presentation since it depicts a tabulation of quantitative data into classes. From these distributions, the partitions of a variable as well as the frequency intervals can be determined; nevertheless, it represents a one-dimensional view of a multi-faceted, dichotomous problem. The value of these frequency distributions is mainly descriptive support for the hypotheses which can be seen when compared to key criterion questions on the survey (Appendix D). This research employed the technique of cross tabulations as the primary means to demonstrate that when the categories of variables are put side by side, the relations between variables can be studied. Four new

variables, the scale scores for each individual, were created by summing all those items which were related by content to each other and classifying those summed items into four separate categories or newly created variables. Table 2 depicts the summed items and the variable categories as described above. On the basis of preliminary scoring, the individuals were ordered from more favorable to less favorable toward women in combat. The favorable responses have been compared to the unfavorable responses. The attitude statement served as the discriminator between those respondents of a contemporary mind-set and those of a traditional mind-set. The item-analysis which was accomplished early in the research design provides the reliability required to accurately discriminate between these two groups of individuals. A detailed discussion of the item analysis and the relationships among attitudes and other variables was handled earlier in this chapter.

Table 3 depicts the ordering as high equals three, which refers to the highest degree of favorability; medium equals two or the range of moderately favorable attitude; and low equals one which will reflect the least amount of favorableness to a particular question or set of conditions concerning women in combat.

TABLE 2  
ATTITUDE SCALE VARIABLES

CREATED VARIABLE	SCALE SCORE	SUMMED ITEMS
Role Perceptions		
	Item 58 = Item 11 + Item 12 + Item 13 +	
	Item 14 + Item 15 + Item 16 + Item 17 +	
	Item 18 + Item 33 + Item 48 + Item 49 +	
	Item 51 + Item 52 + Item 55 + Item 56 +	
	Item 57	
Social Beliefs		
	Item 59 = Item 19 + Item 20 + Item 21 +	
	Item 22 + Item 23 + Item 40 + Item 41 +	
	Item 42	
Traditional vs Contemporary		
	Item 60 = Item 24 + Item 25 + Item 26 +	
	Item 27 + Item 28 + Item 29 + Item 30 +	
	Item 31 + Item 32 + Item 34 + Item 35 +	
	Item 36 + Item 37 + Item 38 + Item 39	
Job Appropriateness		
	Item 61 = Item 43 + Item 44 + Item 45 +	
	Item 46 + Item 47	

TABLE 3

<u>CREATED VARIABLE</u>	<u>LOW = 1</u>	<u>MEDIUM = 2</u>	<u>HIGH = 3</u>
Role Perceptions (Item 58)	16 - 36	37 - 57	58 - 80
Social Beliefs (Item 59)	8 - 17	18 - 28	29 - 40
Traditional vs Contemporary (Item 60)	15 - 34	35 - 54	55 - 75
Job Appropriateness (Item 61)	5 - 11	12 - 18	19 - 25

The four created variables can be explained as the consolidation of those items dealing with each of the four topics of role perception, social beliefs, traditional or contemporary mind-set, and job appropriateness. Specifically, role perception items contained both positive and negative items, i.e., pride in women leaders in my combat unit (positive role perception) and negative items, i.e., "No American woman, even if physically qualified, should be assigned to a maneuver unit during wartime," (negative role perception). These items were recoded to go in opposite directions (A=5, B=4, C=3, D=2, E=1 for positive items and just the reverse for negative role perception items.

The social beliefs variable is similarly comprised of all the related positive and negative items on the questionnaire. For example, a positive social belief was "Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day." An example of a negative social belief was "It is more acceptable for men to be morally indiscrete than it is for a woman."

The traditional-contemporary mind-set variables were similarly formed by combining items, i.e., "Men naturally assume that women do not want to perform combat duty" (traditional-role perception), and "Public opinion would run strongly against deploying women as combatants" (traditional-social belief). The items were again recoded in opposite directions as described above.

The job appropriateness scale scores were made similarly by combining items concerning traditional and contemporary role perceptions, i.e., rifle-carrying infantry soldier, tank crewmen, cook, and diesel mechanic.

These four variables were created to provide additional independent variables to measure against the criterion variables, after the scale scores were obtained from these composite variables.

In order to divide the sample's responses into degrees of intensity of attitude, conditions were established to determine whether or not relationships existed. If so, the degree was determined by abstracting the relationship from sets of demographic characteristics of the sample.

Appendix E shows how the attitude scale scores were divided into low, medium and high categories. An example of the scale range function is seen in the example of the newly created role perception variable (Item 58). Notice from the appendix that scale 58 has a total of 16 items consolidated into the new variable. If each of these items accrued a value of 1, the lowest possible score for scale 58 would be 16. Conversely, if an individual's attitude lay at the opposite extreme, the score of 5 would be chosen for each item, resulting in a scale score of 5 times 16, or 80. For purposes of this research, the lower third of the range will always equal a very favorable attitude, the middle range will equal a moderately favorable response, and the upper third range will equal an unfavorable response or attitude.

The attitude scales scored the respondent's degree of egalitarianism present in the three components

of his gender role attitude: cognitive, affective, and conative elements. This research dealt with the relationships among the elements of attitude since it is possible to group responses according to their respective scores.

#### Tests of Hypotheses on Scales

The method of testing the hypotheses centered around the chi-square test to distinguish statistical significance from a 50-50 chance expectation. Chi-square ranges from 0, (which indicates no departure of obtained frequencies from expected chance frequencies), through large numbers of increasing values. The chi-square tests were employed to determine whether the differences in the patterns of responses between variables were statistically significant at the .05 level or lower. The Cramer's V statistical test determined the strength of the relationship between the components of the variance in order to measure the association between the two variables. This statistical test shows the proportion of the variance of a dependent variable and how an experimental independent variable contributes as well as what proportion of the total variance the error variance represents.

This research was analyzed based upon the measures of the dependent variable (i.e., attitudes expressed in specific questions) and how they interacted with the relationship between the independent variables (i.g., rank, military experience, etc.). Whenever statistically significant differences were obtained, a subjective assessment was made concerning the operational significance of the differences.

This chapter has dealt with the methodology used for the research. It has shown the conceptual framework rationale and theoretical base of the research design. The next chapter will deal with the analysis of the data.

## CHAPTER III

### ENDNOTES

<sup>1</sup>E. C. Bryant, H. O. Hartley and R. J. Jessen, "Design and Estimation in Two-Way Stratification," Journal of the American Association 55 (1960), pp. 105-124.

<sup>2</sup>Leslie Kish, Survey Sampling (New York: John Wiley & Sons, Inc., 1965), pp. 53-74, 93.

<sup>3</sup>W. G. Cochran, "Relative Accuracy of Systematic and Stratified Random Sample for a Certain Class of Populations," Annals of Mathematical Statistics 17 (1946), pp. 164-77.

<sup>4</sup>Abraham N. Oppenheim, Questionnaire Design and Attitude Measurement (New York: Basic Books, Inc., 1966), p. 30.

<sup>5</sup>Curtis D. Hardyck and Lewis F. Petrinovich, Introduction to Statistics for the Behavioral Sciences, 2d ed., (Saunders Books in Psychology) (Philadelphia, London, Toronto: W. B. Saunders Company, 1976).

<sup>6</sup>Robert F. Priest, "Cadet Attitudes Toward Women 1975," Office of the Director of Institutional Research, U.S. Military Academy, West Point, New York, May 1976; Joel M. Savell and Barry Collins, "Soldiers' Attribution of Contemporary vs Traditional Sex-Role Attitudes to Themselves and to Others," U.S. Army Research Institute for the Behavioral and Social Sciences, July 1975. (Hereinafter referred to as "Cadet Attitudes").

<sup>7</sup>I. Broverman; S. Vogel; D. Broverman; F. Clarkson; P. Rosendranz. "Sex-role Stereotypes: A Current Appraisal," Journal of Social Issues, 1972, 28, pp. 60-78; G. H. Seward and William Larson, "Adolescent Concepts of Social Sex-roles in the United States and the Two Germanies," Human Development, 1968, 11, pp. 217-248.

<sup>8</sup> C. B. Ernhardt and J. Loevinger, "Authoritarian Family Ideology: a Measure, its Correlates, and its Robustness," Multivariate Behavior Research Monograms, 1969, MBR Monograph no. 69-1.

<sup>9</sup> C. Tavris, "Who Likes Women's Liberation--and Why: The Case of the Unliberated Liberals," Journal of Social Issues, 1973, 29, pp. 175-198.

<sup>10</sup> K. Mason and L. Bumpass, "U.S. Women's Sex-Role Ideology, 1970," American Journal of Sociology, 1975, 80, pp. 1212-1219.

<sup>11</sup> P. Gurin, G. Gurin, R. Lao, and M. Beattie, "Internal-External Control in the Motivational Dynamics of Negro Youth," Journal of Social Issues, 1969.

<sup>12</sup> "Cadet Attitudes."

<sup>13</sup> B. Bloom, et al., Taxonomy of Educational Objectives, (New York: Longmans, 1956); R. Ebel, "Obtaining and Reporting Evidence on Content Validity," Educational and Psychological Measurement, XVI (1956), pp. 269-282; R. Lennon, "Assumptions Underlying the Use of Content Validity," pp. 294-304.

<sup>14</sup> Christopher Scott, "Research on Mail Surveys," Journal of the Royal Statistical Society 24, Ser. A (1961), pp. 143-95.

<sup>15</sup> Fred N. Kerlinger, Foundations of Behavioral Research, (New York: Holt, Rinehart and Winston, Inc., 1964), p. 397.

<sup>16</sup> Rensis Likert, "A Technique for the Measurement of Attitudes," Archives of Psychology, 1932, 140, pp. 44-53.

## CHAPTER IV

### PRESENTATION AND ANALYSIS OF DATA

This chapter examines the results of the self-administered, individual questionnaires regarding the attitudes of male, active Army officer students of the Command and General Staff College, concerning women in combat. The central question was: "What are the attitudes of male middle management officers toward women in combat, specifically among future decisionmakers of the next decade?" In addition, this research analyzed the relationships among four created variables or scale scores of social beliefs, role perceptions, traditional vs contemporary mind-sets and job appropriateness in terms of how each of these variables was related to each of the others.

Some attitudes go much deeper than others and touch upon one's fundamental philosophy of life, while others are relatively superficial. There are observable patterns of connections and dependent and independent relationships among these different layers of attitudes. The approach of this chapter will be to look first at attitudes of the sample to specific criterion questions; then to examine the sample's own view

of one variable against each of the four scale scores.

When speaking of Army women, a person could be referring to any of the following aspects: cost of training, their efficiency, the effects of a woman on morale and discipline, exceptional women in non-traditional social roles, average women in traditional roles, their capabilities and limitations in an emergency outside the domestic setting. There is no reason why the same person might not think of many permutations of these aspects within a few minutes.

In order to bring evidence to bear on the existence or non-existence of relational propositions, the null hypothesis was used to distinguish statistical significance from chance expectations. The null hypothesis to be tested are: that there are no significant associations between the sample's general perceptions, social beliefs, traditional contemporary mind-sets or job appropriateness views concerning women in relation to specific questions of whether women should be permitted to perform combat duties. Testing these and all other null hypotheses, the writer used the Chi Square Test of the association between two variables, to determine whether the observed frequencies deviated significantly from the frequencies that would be expected if

the two variables were independent. The criterion level of significance, for rejecting the null hypothesis was defined as .05 and lower. The significance of Chi Square depends upon the number of degrees of freedom, which is in turn, a function of the size of the table (i.e., degrees of freedom(DF) equals rows minus 1, times columns minus 1), as well as the deviation from the expected frequencies.

Cramer's V represents the strength of the relationship between two variables with zero indicating no relationship, and 1 equal to a perfect relationship. When a significant association was demonstrated by the Chi Square Test, Cramer's V provided a measure of the strength of that relationship.

The data analysis will be presented in three steps or phases. First, the raw item response frequencies will be presented to provide the detailed examination of the item response frequency distributions. This phase will assist in the assessment of the degree to which a satisfactory variability is obtained on each item. These ten criterion items were then analyzed and compared with the scale score items. The average variance was used as an expression of the degree of time consensus by the respondents to verify

whether or not there was greater consensus on some of the scale scores than on others. Ten criterion items were selected on the basis of either their statistical reliability or their value as a demographic discriminator of the sample when shown as raw frequency distributions. Other scale score frequency distributions will be shown for the four created variables (role perceptions, social beliefs, traditional-contemporary mind-sets, and job appropriateness) to present the cross partitions which facilitated the study and analysis of relationships between two variables. The Chi Square Test ( $\chi^2$ ) and Cramer's V serve as indices of association and the associative strength between variables.

Step two will involve the analysis of the four scale scores which were developed to measure the sample's intensity of attitude concerning women. The development of the four scale scores will show each response in order to place an individual somewhere on an agreement continuum of the attitude in question. The scaling comes about through the sums (or averages) of the individual's responses. The summed rating scales allow for the intensity of attitude to be determined. This set of attitude items was used for the purpose of assigning individuals attitude

scores or places along an agreement-disagreement continuum.

The cross tabulation of scale scores by selected criterion items demonstrates the nature of attitudes toward specific questions of women with regard to role perceptions, social beliefs, traditional-contemporary mind-sets, and job appropriateness. This phase will be the third step in the analysis of data for this research.

## CHAPTER IV

### PART I

#### RAW ITEM RESPONSE FREQUENCIES

The frequency distributions in Tables 4.1 through 4.14 present the distribution of cases, falling into different categories. More specifically, the frequency distributions represent a tabulation of quantitative data into classes which represent partitions of a specific variable.

#### SOURCE OF COMMISSION

Five different sources of commission were represented among the sample. The percentage commissioned from The United States Military Academy represents those officers who received their undergraduate education in isolation from the main stream of the country's youth. The major source of commissioning was the Reserve Officer Training Corps program which might well mean an educational environment more liberal due to an amalgamation of both genders, and a wider cross-section of our society. Less than one fourth of the sample received their commissions from officer candidate school which could mean that these officers entered the

TABLE 4.1

## SOURCE OF COMMISSION

Responses	Absolute Frequency	Relative Frequency (Percentage)	Adjusted Frequency (Percentage)
USMA	21	15.9	15.9
ROTC	72	54.5	54.5
OCS	29	22.0	22.0
Direct Com- mission	9	6.8	6.8
Professional Appointment	1	.8	.8
TOTAL	132	100.0	100.0

Question 1. The source of my commission was:

commissioned ranks with less of an educational base; yet with high potential for an Army career as a professional officer. These officers generally are thought to be judged on their positive attraction for the macho aspects of soldiering in order to qualify to join the commissioned ranks, since the educational qualifications were generally not the discriminators for pre-commissioning candidacy. Those commissioned directly from civilian occupations are rarely influenced by considerations other than personal ones to undertake the Army as a career. This officer usually brings with him a

wealth of experience in a particular field of expertise. The officers categorized as professionals with special skills, (i.e., doctors, lawyers) start their careers in roughly the same manner as the direct commission category except they usually have a financial obligation to repay upon receipt of their credentials. These officers, like the direct commissioned officer have probably had some direct contact with professional women as colleagues. Some may argue that it is the exceptional woman to whom they were exposed as colleagues prior to commissioning. The point here is that during the sample's educational socialization period, USMA, ROTC or OCS classes were not integrated with both genders, thus contact with women was of a social rather than a professional nature. Since the officer with a direct commission joins the Army directly from civilian life with broad experience rather than specialized civilian skills, and then receives specialized training in military fields (which may not have had women in non-traditional roles); those officers with a traditionalist bent, may well experience an attitude change favoring more restricted roles for women.

#### RANK OF THE SAMPLED OFFICERS

Officers ranking in the grade of captain totalled only 1.5 percent of the sample. These captains represent the most junior grade eligible to attend this graduate level, military institution. Captains represent a small minority who have been given this opportunity ahead of their contemporaries. The majority of the sample (94.7%) held the grade of major. Lieutenant Colonels, (representing 3.8 percent of the sample) were not selected for advanced schooling as early as were the captains and majors.

TABLE 4,2

RANK			
Responses	Absolute Frequency	Relative Frequency (Percentage)	Adjusted Frequency (Percentage)
Captain	2	1.5	1.5
Major	125	94.7	94.7
Lieutenant Colonel	5	3.8	3.8
TOTAL	132	100.0	100.0

Question 2. My rank is: Captain, Major or Lieutenant Colonel.

Since the Army is so carefully constructed a hierarchy, the captains represent a group of keen, young, officers rising quickly ahead of their peers. The majors represent the group most likely to occupy more senior levels of management with the next decade; and the lieutenant colonels represent an older group of high quality officers who will immediately occupy command positions or senior staff positions upon departure from this institution.

TABLE 4.3

AGE			
Responses	Absolute Frequency	Relative Frequency (Percentage)	Adjusted Frequency (Percentage)
31-35	86	65.2	65.2
36-40	42	31.8	31.8
<u>41-45</u>	<u>4</u>	<u>3.0</u>	<u>3.0</u>
TOTAL	132	100.0	100.0

Question 3. My age group is.

Considering the narrow range of only five years between age categories, there was a high concentration of officers in their early thirties. There were no individuals in the sample below 30 years of age; nor were there any individuals between 46 and 50 years of age. This means

that the sample spanned 1.5 decades with regard to age. The age difference of these two groups was not differentiated as a discriminator with regard to attitudes in this research.

#### MAJOR MILITARY EXPERIENCE

The officers in the special skills category (i.e., doctors, lawyers) serve within the confines of their own particular professions. It is difficult to meaningfully distinguish between the combat service support and the combat support officer since they both serve primarily in support of the combatants. Therefore, their attitudes are likely to be fairly similar concerning women performing technical functions within the combat support or combat service support areas of expertise.

TABLE 4.4

#### MAJOR MILITARY EXPERIENCE

Responses	Absolute Frequency	Relative Frequency (Percentage)	Adjusted Frequency (Percentage)
Combat Arms	60	45.5	45.5
Combat Support	34	25.8	25.8
Combat Service Support	34	25.8	25.8
<u>Professional</u>	4	3.0	3.0
<b>TOTAL</b>	<b>132</b>	<b>100.0</b>	<b>100.0</b>

Question 4. My major military experience is.

The majority of the sample had combat arms experience. They may be thought of as having both the capability and desire to take part in warfare as he is quite prepared to be fired upon or step into the path of the enemy, as a professional man at arms. This type officer may be said to possess a "guardian" attitude.

#### EDUCATION LEVEL

The majority of the sample possessed graduate degrees and a good percentage (6.8) held post-graduate degrees. (This suggests at least face validity for education as being the discriminator between creative and imaginative thinking and an acceptance of the status quo.

TABLE 4.5

EDUCATION LEVEL			
Responses	Absolute Frequency	Relative Frequency (Percentage)	Adjusted Frequency (Percentage)
Undergraduate w/o Degree	2	1.5	1.5
Baccalaureate	34	25.8	25.8
Graduate Degree	87	65.9	65.9
Post-Graduate Degree	9	6.8	6.8
<b>TOTAL</b>	<b>132</b>	<b>100.0</b>	<b>100.0</b>

Question 5. My level of education is.

There were no individuals in the sample with an education level under two years of college and only a small minority (1.5%) were undergraduates without degrees. This sample represents a very highly educated group much more so because they are attending a senior Army service college than because of their formal education.

#### MARTIAL STATUS

The majority of the sample were married. This would infer they are accustomed to relating to women primarily as a protector of a dependent. This could cause these officers to more likely hold restrictive views of women, as capable of doing most anything. This homogeneity of marital status suggests a fairly typical private life-style with emotional and cultural attachments.

TABLE 4.6

#### MARITAL STATUS

Responses	Absolute Frequency	Relative Frequency (Percentage)	Adjusted Frequency (Percentage)
Single	5	3.8	3.8
Married	122	92.4	92.4
Divorced	5	3.8	3.8
TOTAL	132	100.0	100.0

Question 6. My marital status is.

The fact that most of the sample have families may affect their view of the family and married women undertaking the nomadic life of the soldier. First, the idea of taking more married women or women who may become sole parents clashes with the military self-image as well as traditional marital responsibilities. Second, as was pointed out by one of the respondents who provided written comments, "My feelings about women in combat are cultural and emotional and I would do all I could to keep women out of combat." The wife role calls forth many images including housekeeper, hostess, mother, gender inferiority, sex objects, or other distinctly "feminine" personality traits, which are considered appropriate to the domestic setting. A number of unsolicited comments from male colleagues in the classroom setting or during informal occasions throughout the school year were provided this researcher regarding the value of the wife in the home, to include managing a budget and family finances. These officers were not identified, of course, as members of the sample; however, their views are considered equally representative of the student population. The idea that it is the married, educated officer who has the best appreciation of women and their capabilities was articulated more than once in

a complimentary manner concerning women in a traditional domestic setting. A review of Appendix B shows that responses were concentrated in the areas of agreement (32.6%) and disagreement (35.6%), when asked the traditional mind-set question: "Under ordinary circumstances, women belong in the home, caring for children and carrying out domestic duties; whereas, men should be responsible for the financial support of the family" (Item 29). There were more cases of strong disagreement (10.6%) than there were for strong agreement (8.3%) to this traditional mind-set question. Another question (Item 30) was phrased in the contemporary vein: "Ideally, relationships between men and women are equal and husbands and wives should share domestic child rearing and financial responsibilities.". Strong agreement and mid agreement totalled 66 percent; those disagreeing totalled 21.2 percent and those strongly disagreeing totalled only 4.5 percent of the sample.

The institution of marriage in general, has come a long way from patriarchy toward a more balanced relationship, nevertheless, nearly all the published theories on social change seem to agree that monogamy will prevail. Therefore, it is clear that change in the general direction toward a contemporary mind-set will continue in the same direction in which it has been changing for

the past few generations; namely, toward a redefinition of the special roles played in the domestic setting, so as to achieve more egalitarian life expectations for both genders.

WORKED IN THE SAME UNIT WITH MILITARY WOMEN

Question seven was asked to account for or to explain some of the attitudes which may be seen as operating from either a contemporary mind-set or a traditional mind-set; and from this frame work, to provide a basis to study the various relationships, which either support or refute the hypotheses established in Chapter One.

TABLE 4.7

WORKED IN THE SAME UNIT WITH MILITARY WOMEN

Responses	Absolute Frequency	Relative Frequency (Percentage)	Adjusted Frequency (Percentage)
Yes	97	73.5	73.5
No	35	26.5	26.5
TOTAL	132	100.0	100.0

Question 7. I have worked in the same organization/unit with a military woman (or women).

This question shows that the majority of officers have worked with military women. This same question will be used later in the research as an independent variable (the presumed cause) of other factors or dependent variables

which produce presumed effects. It can be assumed that two thirds of the sample have observed women primarily in non-combat roles or restricted to specific military occupational specialties in the medical or administrative support fields, since nearly half of the sample (45.5 percent) were in the combat arms.

#### LENGTH OF TIME SINCE LAST SERVED WITH MILITARY WOMEN

From this response, it may be seen that the large majority of the sample has worked with military women within the last 24 months. While it should be noted that women were performing nontraditional jobs more frequently during this period, than in any other period in history. Nevertheless, a large majority of these women were probably in the junior enlisted and officer ranks. This would make a difference in their perceived capabilities concerning "decision-making," physically "situational-dependent" variables. Although the question was not asked, it is likely that almost none of the women observed were either senior enlisted or senior officer personnel for the most part.

TABLE 4.8

## LENGTH OF TIME SINCE SERVED WITH MILITARY WOMEN

Responses	Absolute Frequency	Relative Frequency (Percentage)	Adjusted Frequency (Percentage)
0-2 Years	81	61.4	78.6
3-5 Years	20	15.2	19.4
6-8 Years	2	1.5	1.9
Missing	29	22.0	Missing
TOTAL	132	100.0	100.0

Question 8. The length of time that has passed since I last served with a military woman (or women) is: a. 0-2 yr; b. 3-5 yr; c. 6-8 yr; d. 9 or more yr.

This is a safe assessment since women have only achieved flag rank from non-combat branches. Therefore, these men could have worked or observed senior (Major or above) women officers, the majority of officers in the sample were in the combat arms; where women have not been assigned at this time.

## NUMBER WHO HAD BEEN SUPERVISED BY MILITARY WOMEN

From the preceding discussion of Tables 4.5 and 4.8, it can be assumed that there would have been very few men who have ever been supervised by a military woman. First, because nearly two thirds of the sample

were either in the combat arms or combat support positions and women have traditionally not had those military experiences. Also, since there are only 18 colonels, 52 lieutenant colonels and 94 majors who are women officers, (excluding medical department officers) very few positions and even fewer command positions have been filled by senior women.

TABLE 4.9

NUMBER WHO HAD BEEN SUPERVISED BY A MILITARY WOMAN			
Responses	Absolute Frequency	Relative Frequency (Percentage)	Adjusted Frequency (Percentage)
Yes	7	5.3	5.3
No	124	93.9	93.9
Invalid Response	1	.8	.8
<b>TOTAL</b>	<b>132</b>	<b>100.0</b>	<b>100.0</b>

Question 9. I have been supervised by a military woman. The large majority of the sampled population had never been supervised by a military woman. This would be expected since the major military experience of the men had been in either the combat arms or combat support units.

#### RESPONDENTS WHO HAD SERVED IN COMBAT UNDER FIRE

It is not surprising to note that nearly all of the sample (82.6 percent) had served in combat under fire. The average number of months in combat was 17 months; the maximum number of months was 40 months. It was left up to the individual to define whether his combat experience was under direct or indirect fire.

TABLE 4.10

#### RESPONDENTS WHO HAD SERVED IN COMBAT UNDER FIRE

Responses	Absolute Frequency	Relative Frequency (Percentage)	Adjusted Frequency (Percentage)
Yes	109	82.6	82.6
No	23	17.4	17.4
TOTAL	132	100.0	100.0

Question 10. Have you served in combat under fire? Since the majority of the sample had served in combat under fire, the sample was homogeneous in this regard. This could mean that they share a view of the military professional role as that of a manager of violence, the supreme test of man, of his physique, of his intellect, and particularly of his character. Women have not routinely been required to withstand a similar such rigorous

test; thus the possibility exists that the attitudes regarding the capabilities and limitations of women could evolve to such a point that they become perceived as more uniformly held by both genders. This area offers a fruitful potential for enhancing agalitarian mind-sets by placing women in nontraditional jobs to include the stress of being a minority in a primarily male dominated environment while providing them with positive leadership.

#### IMPROVED PERSONAL ATTITUDE TOWARD MILITARY WOMEN

In regard to personal attitude toward military women over 49 percent agreed with the question. However, approximately 29 percent disagreed to a strong or mild degree. Those with conservative views will be compared to those with more liberal views later in this chapter to determine which of these groups felt that their opinion had become more favorable.

This basic criterion question was asked to measure the relationship between attitude change within the past year and role perceptions, social beliefs, traditional-contemporary mind-sets and job appropriateness. Nearly one half of the sample (49.6 percent) either strongly agreed or agreed that their attitudes

had become more favorable within the past year. Later in this chapter, comparisons will be made to determine whether the large proportion of those who agreed scored in the low, medium or high end of the attitude scale continuum.

TABLE 4.11

IMPROVED PERSONAL ATTITUDE TOWARD MILITARY WOMEN

<u>Responses</u>	<u>Absolute Frequency</u>	<u>Relative Frequency (Percentage)</u>	<u>Adjusted Frequency (Percentage)</u>
Strongly Agree	11	8.3	8.4
Agree	54	40.9	41.2
Undecided	28	21.2	21.4
Disagree	25	18.9	19.1
Strongly Disagree	13	9.8	9.9
<u>Missing</u>	<u>1</u>	<u>.8</u>	<u>Missing</u>
<b>TOTAL</b>	<b>132</b>	<b>100.0</b>	<b>100.0</b>

Question 14. During the past year, my attitude toward women in the military has become favorable.

The category of "undecided" should be viewed in isolation from the other responses since it represents a higher concentration than those who disagreed. There were more who were undecided (21.4 percent) than those who expressed mild disagreement (19.1 percent); however,

those who disagreed, either to a mild or strong degree (29 percent) felt that their personal attitudes had not become more favorable toward military women within the past year. Since women have only recently been assigned to jobs other than those traditional ones of clerical, medical and administrative, there has not been sufficient time for women to develop their professional credibility, trust and confidence as soldiers among men and women. On the other hand, if the sample decided that a change in either some of those protective habits that have been developed through socialization, or those ideas unfavorable toward women in the military would not be contrary to those ideas favorable to their self-images. The 21 percent undecided offer a considerable number that could decide either for or against. It should be noted that 61.4 percent of the sample has served with military women within the past twenty-four months; however, there is no explanation that would indicate who were the officers whose attitude had changed. This aspect of attitude change provides a basis for a later study to determine which group of officers changed their attitude and whether those who had worked with women have the "improved" attitude or if it was the other respondents.

### WOMEN AS COMBATANTS

The responses to this contemporary mind-set question were dispersed widely yet the concentration can be seen in three areas. More of the sample agreed than disagreed with this contemporary issue. On the other hand, those who expressed disagreement leaned toward the strongest intensity of feeling as shown by the strongly disagree category. Nevertheless, the 11 percent who were undecided may indicate a potential toward either end of the attitude spectrum depending upon increased observations of women's performance.

It was expected that the sample would hold a generally unfavorable view toward women in combat since the sample was fairly homogeneous with respect to age, marital status, educational level and major military experience.

The intensity of feeling between agreement, strong agreement, disagreement and strong disagreement does provide the cutting point between positive and negative attitudes toward women in combat. The intensity of attitudes may simply indicate a tendency on the part of some people to verbalize strong responses to almost anything where other people would verbalize

less intensity under the same circumstances. The results may suggest that there is considerable variability within the sample concerning attitudes toward women in combat considering that more than 36 percent agreed or strongly agreed.

TABLE 4.12

WOMEN AS COMBATANTS			
Responses	Absolute Frequency	Relative Frequency (Percentage)	Adjusted Frequency (Percentage)
Strongly Agree	9	6.8	6.8
Agree	39	29.5	29.5
Undecided	15	11.4	11.4
Disagree	34	25.8	25.8
<u>Strongly Disagree</u>	<u>35</u>	<u>26.5</u>	<u>26.5</u>
TOTAL	132	100.0	100.0

Question 50. Women should be permitted to perform combat duty.

If women were to be successfully trained and tested in combatant roles it is quite possible that a minimum of 48 percent (36 percent in agreement plus 12 percent undecided) would be sufficient to support opening combatant roles to women. The possibility also exists that the 52 percent objecting to women as

combatants exists because their attitudes on this issue are more deeply rooted in their personal value systems than are their attitudes on women in nontraditional social positions. Their attitudes have been formed and are sustained by a number of influences that speak far louder than either the Army's official communications or public opinion.

#### PUBLIC OPINION PREVENTS WOMEN IN COMBAT

Since the heaviest area of concentration of responses was in the agreement category and the next heaviest was in the strong agreement category of this traditional social belief, it may be argued that the sample was responding to the question as stated and therefore the responses may not represent their personal opinions concerning deploying women as combatants. Also, since combat criterion item 50 showed a slightly significant tendency statistically toward the negative view of women as combatants. These data suggest that there is no typical view held by members of the sample concerning the specific question of women being deployed or permitted to serve as combatants. As shown earlier in Table 4-12, there is considerable variability on the issue.

TABLE 4.13

## PUBLIC OPINION PREVENTS WOMEN IN COMBAT

Responses	Absolute Frequency	Relative Frequency (Percentage)	Adjusted Frequency (Percentage)
Strongly Agree	36	27.3	27.3
Agree	77	58.3	58.3
Undecided	11	8.3	8.3
Disagree	7	5.3	5.3
<u>Strongly Disagree</u>	1	.8	.8
TOTAL	132	100.0	100.0

Question 53. Public opinion would run strongly against deploying women as combatants.

Among the sample however, there is a slight tendency to take a negative view of the physical capacities of women soldiers which might reach significance given a larger sample. Regarding the sample's views or response to item 53, the principal conclusion is that there is a certain tendency to conform to news-media-inspired notions. Also, it indicates that cultural and emotional conditioning is present. Therefore, evidence does exist for the assertion that one's view allows for stereotyping as a result of one's conditioning.

### NEGATIVE IMPACT ON MILITARY READINESS

This traditional belief concerning the specific military issue of military readiness showed the three areas of highest concentration, in order of priority, to be: agree, disagree, and strongly agree. However, the undecided category was unusually large. These findings provide evidence for the independence of view among the sample and a lack of stereotyping among the middle management decisionmakers.

TABLE 4.14

### NEGATIVE IMPACT ON MILITARY READINESS

Responses	Absolute Frequency	Relative Frequency (Percentage)	Adjusted Frequency (Percentage)
Strongly Agree	30	22.7	22.7
Agree	40	30.3	30.3
Undecided	23	17.4	17.4
Disagree	31	23.5	23.5
<u>Strongly Disagree</u>	<u>8</u>	<u>6.1</u>	<u>6.1</u>
<b>TOTAL</b>	<b>132</b>	<b>100.0</b>	<b>100.0</b>

Question 54. "Military readiness is a critical and uncompromisable element that should not be experimented with by deploying women as combatants."

Studies published at senior levels of military management have concluded that the United States will err on the side of national security given any degree of compromise of readiness. This position was therefore expected to give rise to support towards maintaining the status quo among officers presently occupying middle-management positions and aspiring to higher levels of senior military management. This independence of view and lack of stereotyping among the sample is cause for satisfaction. While it may be true that common attitudes emerge with regard to specific military issues; it may also be true that these attitudes could be applied with confidence to a wider strata of society.

The potential of obtaining agreement from 47 percent (those undecided plus those disagreeing) offer positive potential for obtaining widespread support of women as a positive influence on military readiness.

## CHAPTER IV

### PART II

#### ANALYSIS OF SCALE SCORES

The following Tables 4.15 through 4.18 show the frequency distributions of the four categories (role perceptions, social beliefs, traditional-contemporary mind-sets, and job appropriateness) by the scale scores which were created by summing the content of each of the 57 questions on the survey instrument according to which category of four attitudes it was designed to measure. As was mentioned in the methodology chapter (Chapter III), the attitude scale was divided into three parts according to an assinged score. The low end of the attitude continuum represented the conservative or restricted view of the capabilities and limitations of women. Medium represented the moderate view of women which could be interpreted to mean that women could no most anything within the parameters of commonly held beliefs concerning biology and the social role. The high end of the attitude scale represented a view toward egalitarianism or the idea that women should be free to chose according to their individual talents and preferences.

TABLE 4.15

FREQUENCY DISTRIBUTION OF SCALE SCORES FOR GENERAL  
ROLE PERCEPTIONS CONCERNING WOMEN

Category	Absolute Frequency	Relative Frequency (Percentage)	Adjusted Frequency (Percentage)	Cumulative Frequency (Percentage)
Low	26	19.7	20.8	20.8
Medium	90	68.2	72.0	92.8
High	9	6.8	7.2	100.0
Missing	7	5.3	Missing	
<b>TOTAL</b>	<b>132</b>	<b>100.0</b>	<b>100.0</b>	

Valid Cases 125      Missing Cases 7

The majority of the sample held a moderate or intermediate view of the role of women in general within the context of the content of these survey questions. The high category reflects that 7.2 percent fell into the unrestricted view range and 20.8 percent fell into the restricted, low range or the anti-egalitarian range of attitude. There were fewer of the sample who expressed a strongly egalitarian attitude toward expanded roles for women than expressed an anti-egalitarian, constricted viewpoint with regard to general role perceptions concerning women. The large majority holding the moderate or intermediate view could be a

### GENERAL ROLE PERCEPTIONS SCALE SCORES

Table 4.15 shows the frequency distribution of responses to the questions regarding the general role perceptions concerning women. These data represent the results obtained by combining all the specific items which had to do exclusively with role perception. The low category represents those holding a conservative view of women outside the home and favoring limited experiences for women; hence, they expressed unfavorable, non-egalitarian or highly traditional attitudes toward women's roles in general. The medium category was characterized by those having neither a strongly traditional nor a strongly contemporary attitude toward the role of women in general.

Those in the middle category could lean either way and these members of the sample expressed generally moderate views or opinions in response to specific survey items. The high category represents those expressing a highly favorable, liberal or strongly egalitarian attitude toward the roles of women in general.

very positive indication. It could mean that their attitudes were neither strongly against nor strongly in favor of egalitarianism. Similarly, these findings could represent a group who are indeed "undecided" while they await further experience with the issues affecting the Army with respect to determining women's roles in non-traditional jobs.

#### SOCIAL BELIEFS SCALE SCORES

Table 4.16 shows the frequency distribution of social beliefs concerning women. The social beliefs variable was derived by totalling all those survey items with subject content related to women's increasing responsibility for leadership in intellectual problems of the day, of business and among all professions, as well as those items discussing the catalysts for expanded roles for military women.

There were no responses which favored a highly restricted role for women in general. The absence of the low category indicated that the sample did not favor a limiting, restrictive, literal interpretation of the traditional role of women regarded as fundamental to social stability. The absence of the low category could mean that the tendency to oppose change in social

institutions with regard to egalitarianism was absent among the sample. If non-egalitarian attitudes exist among the sample, they were not reflected with regard to social beliefs. The majority of the sample expressed a moderate or intermediate attitude with regard to social beliefs concerning the role of women. Over 42 percent expressed a highly favorable attitude toward egalitarian social beliefs with regard to women in general.

TABLE 4.16

FREQUENCY DISTRIBUTION OF SCALE SCORES FOR SOCIAL  
BELIEFS CONCERNING WOMEN

Category	Absolute Frequency	Relative Frequency (Percentage)	Adjusted Frequency (Percentage)	Cumulative Frequency (Percentage)
Medium	75	56.8	57.3	57.3
High	56	42.4	42.7	100.0
Missing	1	.8	Missing	
<b>TOTAL</b>	<b>132</b>	<b>100.0</b>	<b>100.0</b>	

Valid Cases 131

Missing Cases 1

## CHAPTER IV

### PART III

#### CROSS TABULATION OF SCALE SCORES OF SELECTED CRITERION ITEMS

##### MIND-SETS SCALE SCORES

Table 4.17 depicts the responses to all those survey questions which were designed to distinguish between the traditional and contemporary mind-sets among the sample. All these items have been recoded to be scored in the direction that would display both the positive and negative trends so that in this sense, traditional-contemporary mind-sets would represent both of the dichotomous viewpoints. The mind-set scale scores represent the definite opinions or frames of reference for the expressed perceptions. Variable 60 was created by combining all those items whose content contained concepts concerning work alongside women, women's capabilities, assignment and promotion preferences, domestic responsibilities, physical limitations and affect on military readiness. Approximately 3 percent had mind-sets which reflected an unfavorable or restricted view; 73 percent did not express strong mind-sets either way.

TABLE 4.17

FREQUENCY DISTRIBUTION OF SCALE SCORES OF TRADITIONAL-  
CONTEMPORARY MIND-SETS CONCERNING WOMEN

Category	Absolute Frequency	Relative Frequency (Percentage)	Adjusted Frequency (Percentage)	Cumulative Frequency (Percentage)
Low	4	3.0	3.5	3.5
Medium	84	63.6	73.0	76.5
High	27	20.5	23.5	100.0
Missing	17	12.9	Missing	
TOTAL	132	100.0	100.0	

Valid Cases 115      Missing Cases 17

Over 23 percent were in the high range, reflecting an unrestricted view of women's roles, which may reflect a mind-set that perceives women as possessing the capability to do any job or hold any achieved position for which they qualify. Again, it may be considered a positive sign for the Army that nearly two thirds of the sample do not feel strongly either way. This group offers the most viable potential for developing egalitarian mind-sets. Further, it offers the basis for the assertion that there may be positive support for further increasing the number of Army women in non-traditional roles.

### JOB APPROPRIATENESS SCALE SCORES

Table 4.18 depicts the combination of attitudes represented by the specific responses to the specific questions concerning job appropriateness for military women which were combined to create variable 61. Those in the low part of the attitude spectrum expressed an unfavorable, restricted, traditional view toward non-traditional jobs for women. More than 61 percent of the sample expressed a moderate view toward women in non-traditional roles. Less than 1 percent of the sample expressed a highly favorable attitude toward women in non-traditional military roles.

TABLE 4.18

#### FREQUENCY DISTRIBUTION OF SCALE SCORES FOR JOB

#### APPROPRIATENESS CONCERNING WOMEN

<u>Category</u>	<u>Absolute Frequency</u>	<u>Relative Frequency (Percentage)</u>	<u>Adjusted Frequency (Percentage)</u>	<u>Cumulative Frequency (Percentage)</u>
Low	46	34.8	37.7	37.7
Medium	75	56.8	61.5	99.2
High	1	.8	.8	100.0
Missing	10	7.6	Missing	
<b>TOTAL</b>	<b>132</b>	<b>100.0</b>	<b>100.0</b>	

Valid Cases 122

Missing Cases 10

The individual responses from which this job appropriateness variable was comprised express both the positive and negative role perceptions. The responses were recoded in the same direction to represent the views of which specific jobs should be reserved for women or would be acceptable if occupied by women.

The restricted view of specific military jobs for women was held by 37.7 percent of the sample in comparison to the low category on Tables 4.15, 4.16 and 4.17 on the preceding pages which represent 20.8 percent anti-egalitarian attitudes toward women's roles; none chose restricted social beliefs for women; and 3.5 percent held conservative or restricted mind-sets.

This finding supports both hypotheses of this study.

It demonstrates support for the first hypothesis in that there is indeed a significant difference between the perceptions regarding the ideal egalitarian social role for women in general and the military role of women as combatants. Seven percent of the sample expressed strongly positive egalitarian attitudes toward general role perceptions for women. Yet less than 1 percent felt similarly when asked about non-traditional military roles for women.

Support is also provided for the second hypothesis that social beliefs are related to those attitudes regarding what are appropriate tasks for women in the military and society. These findings and the relationships will be analyzed further with regard to other specific criterion items in subsequent discussion in this chapter.

Nevertheless, 42.7 percent of the sample were strongly egalitarian concerning social beliefs. In regard to mind-set, 23.5 percent held a high or contemporary mind-set while 73 percent expressed a moderate mind-set. However, only 0.8 percent expressed a strongly egalitarian view toward appropriate non-traditional military jobs for women.

#### ROLE PERCEPTION SCALE SCORES COMPARED WITH CRITERION ITEMS

The following table summarized chi square, degrees of freedom (df), significance level and Cramer's V for all the relationships considered. The significance level .0000 represents less than one chance in 10,000 that an association between two variables could have resulted by chance; therefore, this value represents a highly significant relationship (extremely unlikely to have occurred by chance).

#### NULL HYPOTHESIS TO BE TESTED

The null hypotheses to be tested are that there are no significant associations between the sample's scale scores concerning women and the specific questions concerning unrestricted roles for women to include performing combat duties. The results are shown at Table 4.19.

The obtained ranges in Cramer's V indicate that although only moderately strong, the strongest association observed was between general role perceptions and the specific combat criterion item regarding the impact of women on military readiness (item 50). A moderately strong relationship exists between the general role perceptions concerning women and the question of whether women should be permitted to perform combat duties (item 54). Although there is some relationship between source of commission (item 1) and role perception and major military experience (item 4) and general role perceptions, the  $\chi^2$  test of significance level, and Cramer's V show very weak associations between these variables. The relationships between role perceptions and the criterion item relating to work in the same organization with a military woman (item 7) is not significant.

TABLE 4-19

## ROLE PERCEPTIONS VS CRITERION ITEMS

Item	$\chi^2$	Degrees of Freedom	Significance Level	Cramer's V	Cases
Combat (50)	74.42803	8	.0000	.54563	125
Public Opinion (53)	49.34341	8	.0000	.44427	125
Readiness (54)	93.20754	8	.0000	.61060	125
Social Beliefs (59)	5.04088	2	.0804	.20162	124
Mind-Set (60)	49.73826	4	.0000	.47986	108
Job Appropriateness (61)	24.20743	4	.0001	.32442	115
Source of Commission (1)	5.49685	8	.7034 NOT SIG	.14828	125
Major Military Experience (4)	4.65054	6	.5893 NOT SIG	.13639	125
Same Unit (7)	3.97632	2	.1369 NOT SIG	.17836	125
Readiness (14)	27.57910	8	.0006	.33214	125

The nature of being female is to be excluded from professionalism in arms, and yet, professionalism is the main feature of the comradeship that draws military men and women together. Combat may be the last bastion of the traditional mind-set and attitudes of the sample cannot be expected to change overnight since these cultural attitudes have evolved from the beginning of time. However, mobilization does not allow time to liberalize.

Both military questions and social questions were interspersed to comprise the general perception scale scores. Beliefs regarding both the woman's military and social roles in nontraditional positions were considered to be statistically reliable in measuring the contemporary role perception of the sample with regard to the combat criterion question (item 50). Statistical reliability was verified by the high correlation between the two variables which becomes significant because of the existence of hypothesized relationships, but also because the measure of the dependent variables (against the independent variables) continued minimum inconsistencies in role perceptions for social and military environments. The nature of specific relationships can be determined by detailed examination

of the tables on role perceptions on tables 4.16  
through 4.27.

ROLE PERCEPTION SCALE SCORES COMPARED WITH COMBAT  
CRITERION QUESTION:

The null hypothesis to be tested is that there is no significant association between role perceptions scale scores concerning women and the combat criterion question of whether women should be permitted in combat.

The observations show that there is a significant association between those who strongly disagree that women should be permitted to perform combat duty and those who expressed a generally unfavorable attitude toward women's expanded roles in general. The moderately favorable attitude range reflects an interesting distribution between those in agreement and those in disagreement. There were nearly as many who disagreed as those who agreed with permitting women in combat, among those who expressed a moderate attitude toward egalitarianism, there were no cases of indecision or disagreement, which means there was little incongruence of attitude among the liberal segment of the sample with regard to permitting women in combat.

TABLE 4-20

Role Perceptions SCALE SCORES VS ITEM 50 (Combat Criterion Question)

		Strongly/ Agree		Undecided		Disagree		Strongly/ Disagree		ROW TOTALS	
LOW	1 (.8%)	3 (2.4%)		1 (.8%)		5 (4%)		16 (12.8%)		26 (20.8%)	
MEDIUM	2 (1.6%)	30 (24%)		14 (11.2%)		27 (21.6%)		17 (13.6%)		90 (72%)	
HIGH	6 (4.8%)	3 (2.4%)								9 (7.2%)	
COLUMN TOTALS	9 (7.2%)	36 (28.8%)		15 (12%)		32 (25.6%)		33 (26.4%)		125 (100%)	
Raw Chi Square	74.42803			8	Degrees of Freedom					Significance Level .0000	
Cramer's V	.54563				Cases					Cases	125

Item 50 is regarded as a statistically reliable question and Cramer's V (.54563) indicated that among those who were in the high range or liberal there were none who were undecided disagreed or strongly disagree. It is significant that among those holding moderate views, there was a paradox between those who agreed or disagreed. The reason may perhaps be that role perceptions in general, are independent of the combat criterion questions which establish a dependent relationship. In other words, how one feels about the specific issue of women combatants does not necessarily depend upon how one feels about role perceptions in general (vice versa). Among those in the low category were the conservatives. It is interesting that the highest concentration was among those who strongly disagreed. This means that those who hold restrictive views are most likely to disagree with the issue of women in combat. Those in the high range or the liberals regarding women's roles in general held the highest concentration of intense agreement. Among the most responses agreeing were the moderates; the next highest common response was disagreement among the same group which represents a paradox. If their attitudes are acquired then their

views in response to this question indicates that they still have a long way to go before they become liberal. The moderates expressed a greater intensity to disagree or strongly disagree.

These findings indicate that the sample has come a long way toward eliminating excessive restraint against women combatants. This chart, however, indicates restrained enthusiasm for permitting women in combat among the most conservative and moderate segments of the sample. This tendency was not shown among the liberals.

A review of the moderate's position or responses indicates a paradox in attitude between those who agree and disagree. Role perceptions in general are independent of the combat criterion question of permitting women in combat; possibly because, how one feels about women in combat in specific, does not necessarily depend upon how one feels about women's roles in general. This finding supports the hypothesis that there is a significant difference between ideal, egalitarian social role perceptions for women in general and military role perceptions of women as combatants. Further, there is a dichotomy in male attitudes toward women in contemporary social roles and women performing as combatants.

The highest concentration among the conservatives was in the area of strong disagreement to the question of permitting women in combat. This means that those who hold a restrictive view of women's role in general are most likely to strongly disagree with the issue of women in combat than to agree.

Those holding the most liberal or highly favorable views toward woman's roles in general had the highest concentration of responses in the area of intense agreement. This confirms the earlier finding with consistency that of those who hold a highly favorable, egalitarian view (that women can do anything), they also tend to feel strongly that women should be permitted to perform combat duty.

#### ROLE PERCEPTION SCALE SCORES COMPARED WITH PUBLIC OPINION

The null hypothesis to be tested is that there is no significant association between the sample's general role perceptions regarding women and the specific criterion item concerning public opinion against women in combat.

The observations in Table 4.21 demonstrate that those on the low end of the attitude spectrum strongly agreed that public opinion would run strongly against

women in combat. The majority of those expressing a moderately favorable attitude toward women's roles in general also agreed with the statement that public opinion would be against employment of women in combat. Among those expressing a highly favorable attitude toward egalitarianism, the majority agreed that public opinion would be against women in combat; however, approximately 1 percent disagreed or strongly disagreed.

The relationship between role perceptions and public opinion was slightly below the intermediate range of strength (.44427). Of those holding a restrictive view of women's roles in general, there were no cases of indecision or disagreement that public opinion would run against women as combatants. There was strong agreement among the conservatives in response to this question. Among the moderates, the responses were concentrated in the agreement categories with a small distribution of indecision and disagreement concerning public opinion concerning women's roles. Among the liberals, there were no cases of strong agreement that public would object to women combatants. Responses were concentrated in the area of agreement with minimal dispersion among the categories of indecision, disagreement and strong disagreement.

TABLE 4-21  
Role Perception Scale Scores vs Item 53 (Public Opinion)

	Raw Chi Square	Degrees of Freedom	Significance Level	Cases
Cramer's V	49.34341	8	.0000	125

Question 53. "Public opinion would run strongly against deploying women as combatants."

Among the sample, the single largest response concentration was from the moderates who agreed that public opinion would be against women as combatants. This means that although the majority of the sample could be said to believe that women can do most things, with few restriction, they also believe overwhelmingly that the public would object to women as combatants. The same tendency to agree was found among the entire sample, regardless of whether their role perceptions in general were liberal, moderate, or restricted (high, medium, or low).

ROLE PERCEPTION SCALE SCORES COMPARED WITH MILITARY READINESS

The null hypothesis to be tested is that there is no specific association between general role perceptions concerning women and the specific question "military readiness is a critical and uncompromisable element that should not be experimented with by deploying women as combatants."

The observations between the two variables in Table 4.22 indicate that more of the sample fell into the low range of attitude than any other range when strong agreement was expressed on the issue of military

readiness. More of those expressing a moderate attitude in general also expressed agreement with the question of military readiness as stated. Nearly as many of those expressing the moderate view disagreed with readiness experimentation by deploying women as combatants. Among those who expressed a low attitude in general, there were no responses condoning readiness experimentation by deploying women as combatants. All of those expressing a highly favorable attitude also expressed either disagreement or strong disagreement that readiness should not be experimented with to deploying women as combatants. Military readiness is closely associated with role perceptions. This relationship is the strongest among all the criterion items. This appears to be because the concentration among the liberals among the liberals responses was concentrated in the categories of disagreement or strong disagreement with the idea that there should be no experimentation with readiness to deploy women as combatants. This would indicate that the liberals hold a highly favorable view of the capabilities of women in general and are also in favor of experimenting with military readiness by placing women in combat positions. The moderates represent the widest

TABLE 4-22  
Role Perceptions Scale Scores vs Item 54 (Military Readiness)

		Strongly/ Agree			Strongly/ Disagree		ROW TOTALS
		Agree	Undecided	Disagree	Strongly/ Disagree		
LOW	20 (16.0%)	3 (2.4%)	2 (1.6%)	1 (.8%)		26 (20.8%)	
MEDIUM	10 (8%)	33 (26.4%)	19 (15.2%)	25 (20%)	3 (2.4%)	90 (72%)	
HIGH				4 (3.2%)	5 (4%)	9 (7.2%)	
COLUMN TOTALS	30 (24%)	36 (28.8%)	21 (16.8%)	30 (24%)	8 (6.4%)	125 (100%)	

Question 54. "Military readiness is a critical and uncompromisable element that should not be experimented with by deploying women as combatants."

distribution of responses; hence the greatest incongruence as a group considering the disparity in opinion. Since the moderates represent the largest segment of the sample that is not surprising. It should be noted that among the moderates only 6 percent more agreed than disagreed that concerning experimentation to deploy women combatants. The highest amount of indecision among the moderates could indicate that given strong evidence that his particular experiment with women could become effective over 15 percent of the moderates could become more liberal, based on more favorable evidence of success than is now available to them. How they will be affected remains to be seen. Among those holding restricted views of women (conservatives, low range) the highest concentration was toward strong agreement that military readiness should not be experimented with to deploy women as combatants. There were no cases of strong disagreement which would indicate that they favored experimentation. It should be noted that there was a small percentage of indecision and disagreement to the question as stated. This indicates a strong mind-set and intensity of attitude toward the traditional or conservative view with little incongruence of

attitude among the conservative segment of the sample (with regard to experimentation) military readiness. There is little indication that their attitudes could easily be changed to more moderate or more liberal views with regard to the issue of military readiness.

ROLE PERCEPTIONS SCALE SCORES COMPARED WITH SOCIAL BELIEFS SCALE SCORES

The null hypothesis to be tested is that there is no significant association between general role perceptions regarding woman and the composite social belief variables.

The role perceptions scale score was derived by combining all items with specific content designed to measure role perceptions. The social beliefs scale scores were similarly derived from those items having specific content relating to social beliefs.

There were no cases of unfavorable attitude expressed for those either in the low, moderate, or high ranges of the attitude spectrum. The social beliefs were all moderate or high as were the general role perceptions. The majority of the sample expressed social beliefs that were moderate to highly favorable in relation to general role perceptions. Those whose

TABLE 4-23

ROLE PERCEPTION SCALE SCORES VS SOCIAL BELIEF SCALE SCORES  
(Item 58 by Item 59)

		LOW	MEDIUM	HIGH	ROW TOTALS
		LOW	MEDIUM	HIGH	ROW TOTALS
COLUMN TOTALS	LOW	18 (14.5%)	8 (6.5%)	26 (20.9%)	
	MEDIUM	49 (39.5%)	41 (33.1%)	90 (72.6%)	
COLUMN TOTALS	HIGH	2 (1.6%)	6 (4.8%)	8 (6.5%)	
		69 (55.6%)	55 (44.4%)	124 (100%)	
Raw Chi Square	5.04088	5.04088	2 Degrees of Freedom	Significance Level 1 .000	
Cramer's V	.20162	.20162	Cases	125	

frame of reference was unfavorable concerning egalitarian role perceptions for women were not too strong either way concerning social beliefs; yet, there were some highly favorable social beliefs expressed among those with a generally unfavorable frame of reference concerning the use of women within general conventional propriety. Among those in high agreement with general role perceptions, 4.8 percent perceived women as being capable of doing anything; or it can be said that they held a totally unrestricted view of women's roles in addition to being highly favorable concerning social beliefs.

ROLE PERCEPTION SCALE SCORES COMPARED WITH TRADITIONAL-CONTEMPORARY SCALE SCORES

The null hypothesis to be tested is that there is no significant association between the general role perception of women and the traditional-contemporary mind-sets established in response to specific survey items.

Table 4.24 shows a fairly strong relationship between the role perception variable and the traditional-contemporary mind-set variable. Of the nearly 56 percent who held moderately favorable views toward

traditional-contemporary issues, these individuals also fell into the moderate or intermediate attitude range with regard to role perceptions. It may be said that more than half of the sample expressed moderate mind-sets; none who expressed a moderate mind-set expressed an unfavorable attitude toward role perceptions. Others who expressed an unfavorable attitude toward role perceptions did not express highly favorable mind-sets.

The traditional-contemporary mind-set scale score was derived by combining all items with content of either mind-set and scoring that item in the same direction to comprise a composite score for mind-set. Responses to basic criterion questions 29 and 30 may be reviewed in Appendix D of this study.

Those expressing a restrictive view of general role perceptions expressed no liberal mind-sets as seen in Table 4.24. Those in the moderate range expressed no restricted views of women's roles as a result of their mind-set scale scores. Those in the highly favorable category of mind-sets expressed no highly restrictive or moderately restrictive mind-sets in relation to general role perceptions for women. The majority held moderate views of women's roles as a result of moderate to highly favorable mind-sets.

TABLE 4-24

ROLE PERCEPTION SCALE SCORES VS TRADITIONAL-CONTEMPORARY SCALE SCORES  
(Variable 58 by Variable 60)

		ROW			
		LOW	MEDIUM	HIGH	TOTALS
COLUMN					
LOW	4 (3.7%)	18 (16.7%)		22 (20.4%)	
MEDIUM		60 (55.6%)	17 (15.7%)	77 (71.3%)	
HIGH			9 (8.3%)	0 (8.3%)	
COLUMN TOTALS	4 (3.7%)	78 (72.2%)	26 (24.1%)	108 (100%)	
Raw Chi Square	49.73826	4 Degrees of Freedom	Significance Level .0000		
Cramer's V	.42986	Cases 108			

ROLE PERCEPTION SCALE SCORES VERSUS JOB APPROPRIATE-  
NESS SCALE SCORES

The null hypothesis to be tested is that there is no significant association between the general role perceptions of women and the job appropriateness variable.

Although this relationship is one that did not occur by chance, there is not a strong relationship between these variables as shown by Cramer's V. Most of the sample expressed a moderate view both for role perception and for job appropriateness; which means that the majority could go either way or did not hold strong opinions toward restricted or unrestricted roles for women.

TABLE 4-25

ROLE PERCEPTIONS SCALE SCORES VS JOB APPROPRIATENESS SCALE SCORES  
(Item 58 by Item 61)

		LOW	MEDIUM	HIGH	ROW TOTALS
		LOW	MEDIUM	HIGH	ROW TOTALS
COLUMN TOTALS	LOW	19 (16.5%)	6 (5.2%)	25 (21.7%)	
	MEDIUM	23 (20%)	58 (50.4%)	1 (.9%)	82 (71.3%)
HIGH			8 (7%)	8 (7%)	
COLUMN TOTALS	42 (36.5%)	72 (62.6%)	1 (.9%)	115 (100%)	
Raw Chi Square	24.20743	4 Degrees of Freedom		Significance Level .0001	
Cramer's V	.32442			Cases 115	

ROLE PERCEPTION SCALE SCORES COMPARED WITH SOURCE OF  
COMMISSION

The null hypothesis to be tested is that there is no significant association between the general role perceptions of women and the source of commission.

The relationship is not statistically significant; but it is meaningful to note that most of the sample (72%) held a moderate view toward role perceptions regardless of their source of commission.

The ROTC graduate represented the largest percentage of those of the sample in each of the groups of low, moderate and high views. This could be related to the fact that during their educational experience their exposure to women as colleagues was more frequent than for those officers who received their commissions from USMA or OCS which were all-male environments during the years when this sample was becoming educated and socialized in their pre-commissioning environment.

The possibility exists that the large percentage of ROTC graduates may simply be due to the fact that they represent the largest portion of the sample. Although the relationship is weak, OCS appears to have a smaller proportion of those with a high or liberality

of view than USMA and ROTC. Although direct commissions and special skilled professionals have none in the high category, their proportions were also much smaller. USMA is a cloistered environment that has traditionally attempted to obtain a student body representative of the population at large through such means as the Congressional Nomination program. Also, many West Point cadets come to the Academy with from one to two years of college in other less cloistered university environments. A rough estimate reveals that as many as 30 percent of a 1,000 man class entering the Academy have been partially socialized, educationally in close proximity to the usual student environment.

The range of perceptions among each of the commissioning categories (USMA, ROTC, etc.) reveal other striking relationships when they are examined as separate categories. There is a striking resemblance between the low, medium and high ranges of the USMA, ROTC and DC groups although as a portion of the sample the size of each group varies considerably. For example, ROTC represents about three times as many as USAM and DC represents about one-half of the USMA group. Surprisingly, the low category for OCS represents about twice the percentage for ROTC (35 percent, 16

TABLE 4.26

ROLE PERCEPTIONS SCALE SCORES VS ITEM 1 (SOURCE OF COMMISSION)

		USMA	ROTC	OCS	DIRECT COMMISSION	PROF APPOINTMENT	ROW TOTALS
		LOW	4 (3.2%)	11 (8.8%)	9 (7.2%)	2 (1.6%)	26 (20.8%)
		MEDIUM	15 (12%)	51 (40.8%)	16 (12.8%)	7 (5.6%)	90 (72%)
		HIGH	2 (1.6%)	6 (4.8%)	1 (.8%)	9 (7.2%)	
COLUMN TOTALS		21 (16.8%)	68 (54.4%)	26 (20.8%)	9 (7.2%)	1 (.8%)	125 (100%)
Raw Chi Square Cramer's V		5.49685 .14828	8	Degrees of Freedom Cases		Significance Level .7034 125	

Question 1. "The source of my commission was: USMA, ROTC, OCS, direct commission or professional appointment."

percent, respectively). But the high category for OCS represents about one-half of the percentages for USMA and ROTC.

These findings indicate that the separate category of OCS, alone, representing 21 percent of the sample, would be as important target audience for identifying and dealing with their role perceptions of army women even though OCS is now co-educational.

#### ROLE PERCEPTION SCALE SCORES COMPARED WITH MILITARY READINESS

The null hypothesis to be tested is that there is no significant association between major military experience and general role perceptions concerning women.

These data reflect no relationship between these two variables. Although these data are not statistically significant, deductive analysis may prove meaningful.

All of the professionals again held a moderate view of women's roles in general. The majority of each category divided according to military experience held a moderate view; an equal number of combat support and combat service support held an intermediate

TABLE 4.27

## ROLE PERCEPTIONS SCALE SCORES VS ITEM 4 (MILITARY EXPERIENCE)

		COMBAT ARMS	COMBAT SUPPORT	COMBAT SERVICE SUPPORT	PROFESSIONAL	ROW TOTALS
		LOW	16 (12.8%)	4 (3.2%)	6 (4.8%)	26 (20.8%)
		MEDIUM	38 (30.4%)	24 (19.2%)	24 (19.2%)	4 (3.2%)
		HIGH	4 (3.2%)	3 (2.4%)	2 (1.6%)	9 (7.2%)
		COLUMN TOTALS	58 (46.4%)	31 (24.8%)	32 (25.62%)	4 (3.2%)
						125 (100%)
Raw Chi Square	4.65054	6	Degrees of Freedom			Significance Level .5893
Cramer's V	.13639					Cases 125

Question 4. "My major military experience is: combat arms, combat support, combat service support, professional."

view. The largest number holding a highly favorable view had their major military experience in the combat arms. Perhaps having survived combat causes one to reassess traditional beliefs with respect to the value of life based strictly upon gender.

ROLE PERCEPTIONS SCALE SCORES COMPARED WITH WORK WITH MILITARY WOMEN

The null hypothesis to be tested is that there is no significant association between general role perceptions of women and the specific response to the survey question "I have worked in the same organization/unit with a military woman (or women)." The relationship between these two variables proved statistically insignificant.

Although there is an extremely weak association between role perceptions and work in the same unit with a military woman, it is noted that 74 percent of the sample have worked in the same organization with a military woman; yet 21 percent held a low role perception. It is a hopeful sign that of the 72 percent who held moderate role perceptions views, 22 percent had not served with women. It is expected that there will be a profound change in attitudes toward military women

TABLE 4.28

ROLE PERCEPTIONS SCALE SCORES VS ITEM 7 (WORKED WITH MILITARY WOMEN)

		YES	NO	ROW TOTALS
LOW		20 (16%)	6 (4.8%)	26 (20.8%)
MEDIUM		63 (50.4%)	27 (21.6%)	90 (72%)
HIGH		9 (7.2%)	9 (7.2%)	18 (14%)
COLUMN TOTALS		92 (73.6%)	33 (26.4%)	125 (100%)
Raw Chi Square	3.97632	2 Degrees of Freedom		Significance Level .135
Cramer's V	.17836			Cases 125

and that favorable change will occur as those 26.4 percent who have never worked with military women gain such exposure. Most likely the change will be positive since the higher entrance standards for women means that the woman is more frequently a higher quality soldier than her male counterpart with similar age and experience levels.

ROLE PERCEPTIONS SCALE SCORES COMPARED WITH ATTITUDE CHANGE

The null hypothesis to be tested is that there is no significant association between general role perceptions regarding women and the specific question "During the past year, my attitude toward women in the military has become favorable." The relationship is fairly statistically significant.

The majority (72 percent) were again those who had an intermediate view between restricted and unrestricted roles who tended to disagree (40.8 percent) concerning their attitude change in the more favorable direction. Those who held a favorable attitude overall (7.2 percent) reflecting an even higher incidence of disagreement (1.6 percent disagreed and 2.4 percent strongly disagreed) toward their attitude changing in

TABLE 4.29

## ROLE PERCEPTIONS SCALE SCORES VS ITEM 14 (ATTITUDE CHANGE)

				Strongly/ Disagree		Strongly/ Disagree		ROW TOTALS	
		Agree	Undecided	Disagree	Strongly/ Disagree	Disagree	Strongly/ Disagree	Disagree	ROW TOTALS
LOW	8 (.4%)	5 (4%)	7 (5.6%)	4 (3.2%)	2 (1.6%)	26 (20.8%)			
MEDIUM	4 (3.2%)	17 (13.6%)	18 (14.4%)	45 (36%)	6 (4.8%)	90 (72%)			
HIGH	1 (.8%)	1 (.8%)	2 (1.6%)	2 (1.6%)	3 (2.4%)	9 (7.2%)			
COLUMN TOTALS	13 (10.4%)	23 (18.4%)	27 (21.6%)	51 (40.8%)	11 (7.8%)	125 (100%)			
Raw Chi Square	27.57910	8	Degrees of Freedom				Significance Level	.3005	
Cramer's V	.33214		Cases						.125

a more more favorable direction. This result may be more interpretation of the question as written than do any other deductive analysis. Of those having a traditional or restricted view, fewer of them felt strong disagreement (1.6 percent) that their attitudes were changing favorably. Those who expressed a restricted view of women indicated that their attitudes were changing more favorably, twice as often as those in the moderate attitude range and far more frequently than those in the highly favorable range.

#### SOCIAL BELIEFS COMPARED WITH CRITERION ITEMS

The null hypothesis to be tested are that there are no significant associations between the sample's social beliefs concerning women and the specific questions concerning roles for women, job appropriateness, military readiness, traditional-contemporary mind-sets, source of commission, major military experience, previous work in the same unit/organization with a military woman, and change in personal attitude toward military women within the past year.

Social beliefs are not strongly associated with any other item. The above table shows that social beliefs are not discriminating in relation to these

TABLE 4-30  
SOCIAL BELIEFS VS CRITERION ITEMS

Item	$\chi^2$	Degrees Of Freedom	Significance Level	Cramer's V	Cases
50	6.42403	4	.1696	.22145	131
53	1.97830	4	.7397	.12289	131
54	5.62640	4	.2288	.20724	131
58	5.04088	2	.0804	.20162	124
60	3.65123	2	.1611	.17896	114
61	2.98542	2	.2248	.15708	121
1	4.16768	4	.3838	.17837	131
4	1.90648	3	.5920	.12064	131
7	.34042	1	.5596	.06841	131
14	12.88673	4	.0118	.31485	130

specific questions. A detailed presentation of specific results of the social belief item in relation to other specific items on summary table 4.30 will be presented in Tables 4.31 to 4.40 which follow.

Because the criterion items are very specific on military tasks, the internalization of professional norms has taken place among the sample and their frame, of reference (in terms of a "professionalized" attitude, with regard to behavior) have become independent from their general social beliefs. In effect, their general social beliefs have become practically random and generally not applicable to the basic criterion items which specifically address military issues as they relate to women in combat.

The general overview of the Social Beliefs Scales relates to any other of the criterion items. Item 14 concerns the question, "During the past year, my attitude toward women in the military has become favorable." This positive role perception question has a weak relationship to the social belief scale scores because social beliefs are independent from specific military issues, i.e., women in combat, military readiness. The slight relationship which does exist can be said to exist because this question

deals with an abstract attitude rather than women in specific military roles. The other nine of the ten criterion items deal with specific questions of women in combat and relationships between them are extremely weak or non-existent. The specific hypothesis that there is a significant difference between ideal, egalitarian social role perceptions for women in general and military role perceptions concerning women as combatants is supported in that the major variable (social beliefs) and the specific criterion items are independent of each other.

These criterion items are very specific on military tasks; therefore, it is not surprising that there was only one item which showed even a weak associative strength as compared with social beliefs. At first sight, all these criterion questions lead naturally and inevitably to simple and conclusive negative replies. But on further examination, they beg various assumptions and, in particular, they tend to disregard the dimension of time. Time is critical in defense planning and too often, evolving social changes do not appear to be immediate opportunities for the military. Rapid mobilization leaves no time for trying to change attitudes.

SOCIAL BELIEFS SCALE SCORES COMPARED WITH COMBAT CRITERION QUESTION

The null hypothesis to be tested is that there is no relation between general social beliefs and the combat criterion question "Women should be permitted to perform combat duty."

The results proved statistically insignificant and the null hypothesis is correct in that there is no relation between the social beliefs of the sample and the question of women in combat.

This result shows that the two variables on Table 4.31 are independent of each other and that there is no relation. There is a significant difference between ideal, egalitarian social role perceptions for women in general and military role perceptions of women as combatants. This provides support to the main hypothesis of this research.

SOCIAL BELIEFS SCALE SCORES COMPARED WITH PUBLIC OPINION

The null hypothesis to be tested is that there is no significant association between the sample's social beliefs and the specific question "public opinion would run strongly against deploying women as combatants."

TABLE 4-31

### Social Beliefs Scale Scores vs Item 50 (Combat Criterion Question)

		Strongly / Agree			Undecided			Disagree			Strongly / Disagree		ROW TOTALS		
		LOW	MEDIUM	HIGH	COLUMN TOTALS	MEDIUM	HIGH	COLUMN TOTALS	HIGH	COLUMN TOTALS	LOW	MEDIUM	HIGH	COLUMN TOTALS	
Strongly / Agree	2 (1.5%)	23 (17.6%)	7 (5.3%)	20 (15.3%)	23 (17.6%)	20 (15.3%)	7 (5.3%)	20 (15.3%)	23 (17.6%)	20 (15.3%)	23 (17.6%)	20 (15.3%)	7 (5.3%)	23 (17.6%)	
Agree	7 (5.3%)	15 (11.5%)	8 (6.1%)	14 (10.7%)	12 (9.2%)	14 (10.7%)	8 (6.1%)	14 (10.7%)	12 (9.2%)	14 (10.7%)	12 (9.2%)	14 (10.7%)	8 (6.1%)	12 (9.2%)	
Undecided	9 (6.8%)	38 (29.1%)	15 (11.4%)	34 (26%)	35 (26.8%)	34 (26%)	15 (11.4%)	34 (26%)	35 (26.8%)	34 (26%)	35 (26.8%)	34 (26%)	15 (11.4%)	35 (26.8%)	
Disagree	7 (5.3%)	15 (11.5%)	8 (6.1%)	14 (10.7%)	12 (9.2%)	14 (10.7%)	8 (6.1%)	14 (10.7%)	12 (9.2%)	14 (10.7%)	12 (9.2%)	14 (10.7%)	8 (6.1%)	12 (9.2%)	
Strongly / Disagree	7 (5.3%)	15 (11.5%)	8 (6.1%)	14 (10.7%)	12 (9.2%)	14 (10.7%)	8 (6.1%)	14 (10.7%)	12 (9.2%)	14 (10.7%)	12 (9.2%)	14 (10.7%)	8 (6.1%)	12 (9.2%)	
ROW TOTALS	9 (6.8%)	23 (17.6%)	7 (5.3%)	20 (15.3%)	23 (17.6%)	20 (15.3%)	7 (5.3%)	20 (15.3%)	23 (17.6%)	20 (15.3%)	23 (17.6%)	20 (15.3%)	7 (5.3%)	23 (17.6%)	
COLUMN TOTALS	9 (6.8%)	38 (29.1%)	15 (11.4%)	34 (26%)	35 (26.8%)	34 (26%)	15 (11.4%)	34 (26%)	35 (26.8%)	34 (26%)	35 (26.8%)	34 (26%)	15 (11.4%)	35 (26.8%)	
HIGH	7 (5.3%)	15 (11.5%)	8 (6.1%)	14 (10.7%)	12 (9.2%)	14 (10.7%)	8 (6.1%)	14 (10.7%)	12 (9.2%)	14 (10.7%)	12 (9.2%)	14 (10.7%)	8 (6.1%)	12 (9.2%)	
MEDIUM	2 (1.5%)	23 (17.6%)	7 (5.3%)	20 (15.3%)	23 (17.6%)	20 (15.3%)	7 (5.3%)	20 (15.3%)	23 (17.6%)	20 (15.3%)	23 (17.6%)	20 (15.3%)	7 (5.3%)	23 (17.6%)	
LOW	7 (5.3%)	15 (11.5%)	8 (6.1%)	14 (10.7%)	12 (9.2%)	14 (10.7%)	8 (6.1%)	14 (10.7%)	12 (9.2%)	14 (10.7%)	12 (9.2%)	14 (10.7%)	8 (6.1%)	12 (9.2%)	
Chi Square	6.42403	4	Degrees of Freedom	4	Significance Level	1.1696	Cramer's V	0.22145	Cases	131					

216

TABLE 4-32

Social Belief Scale Scores vs Item 53 (Public Opinion)

		Strongly / Agree		Undecided		Disagree		Strongly / Disagree		Row Totals	
LOW											
	MEDIUM	21 (16%)	43 (32.8%)	6 (4.6%)	5 (3.8%)			75 (57.3%)			
HIGH		15 (11.5%)	33 (25.2%)	5 (3.8%)	2 (1.5%)	1 (.8%)		56 (42.7%)			
COLUMN TOTALS		36 (27.5%)	76 (58%)	11 (8.4%)	7 (5.3%)	1 (.8%)		131 (100%)			

Raw Chi Square 1.97830  
Cramer's V .12289

4 Degrees of Freedom  
Cases 131

Significance Level 1 .7397

No significant statistical relationship is shown between these two variables. It is interesting to note that the largest percentage of those who held a moderate view (as well as those holding a highly favorable view) agreed that public opinion would be against women as combatants. The null hypothesis is proven.

SOCIAL BELIEFS SCALE SCORES COMPARED WITH MILITARY READINESS

The null hypothesis to be tested is that there is no significant association between social beliefs of the sample and beliefs concerning military readiness.

This relationship is neither significant nor strongly associated. It was expected that the tendency among the group would be to agree that military readiness is too critical to allow experimentation by deploying women as combatants. Nevertheless, there is quite a large group (46.6 percent) who strongly agree, or who are undecided. The null hypothesis is proven in that there is no significant association between social beliefs and the critical combat criterion question of military readiness.

TABLE 4-33

Social Beliefs Scale Scores vs Item 54 (Military Readiness)

				Strongly/ Disagree		Row Totals	
		Strongly/ Agree	Agree	Undecided	Disagree		
LOW							
MEDIUM	17 (13%)	26 (19.8%)	15 (11.5%)	15 (11.5%)	2 (1.5%)	75 (57.3%)	
HIGH	13 (9.9%)	14 (10.7%)	8 (6.1%)	15 (11.5%)	6 (4.6%)	56 (42.7%)	
COLUMN TOTALS	30 (22.9%)	40 (30.5%)	23 (17.6%)	30 (22.9%)	8 (6.1%)	131 (100%)	
Raw Chi Square 5.62640		4 Degrees of Freedom		Significance Level .2283		Cases 131	
Cramer's V .20724							

SOCIAL BELIEFS SCALE SCORES COMPARED WITH ROLE PERCEPTIONS SCALE SCORES

The null hypothesis to be tested is that there is no significant association between the created social belief variable and the created role perception variable.

The general social beliefs and specific role perceptions remain independent of each other. The social beliefs that individuals have in varying degrees when they came to the research situation remains unaffected by their specific role perceptions of military women or even their general role perceptions concerning women. This supports the null hypothesis.

SOCIAL BELIEFS SCALE SCORES COMPARED WITH MIND-SETS

The null hypothesis to be tested is that there is no significant association between the social belief variable and the traditional-contemporary mind-sets variable.

This relationship is not statistically significant. These two created variables are independent of each other.

There were no reported cases of extremely unfavorable attitudes toward social beliefs and very few (3.5 percent) unfavorable mind-sets. Although there

TABLE 4.34

## SOCIAL BELIEFS SCALE SCORES VS ROLE PERCEPTIONS (59) SCALE SCORES

				ROW TOTALS
		LOW	MEDIUM	HIGH
				LOW
MEDIUM	18 (14.5%)		49 (39.5%)	2 (1.6%)
HIGH	8 (6.5%)		41 (33.1%)	6 (4.8%)
COLUMN TOTALS	26 (21%)		90 (72.6%)	8 (6.5%)
Raw Chi Square	5.04088	2 Degrees of Freedom		124 (100%)
Cramer's V	.20162			
			Significance Level .0804	
			Cases 124	

TABLE 4.35

## SOCIAL BELIEFS (59) SCALE SCORES VS TRADITIONAL-CONTEMPORARY (60) SCALE SCORES

				ROW TOTALS
		LOW	MEDIUM	
LOW	MEDIUM	4 (3.5%)	50 (43.9%)	13 (11.4%)
	HIGH		34 (29.8%)	13 (11.4%)
COLUMN TOTALS		4 (3.5%)	84 (73.7%)	26 (22.8%)
Raw Chi Square	3.65123	2 Degrees of Freedom	Significance Level	.1611
Cramer's V	.17895	Cases		.114

was no assumption of anti-egalitarian mind-sets, this finding points to the apparent receptiveness of the sample, should the decision for women as combatants be mandated.

SOCIAL BELIEFS SCALE SCORES COMPARED WITH JOB APPROPRIATENESS SCALE SCORES

The null hypothesis to be tested is that there is no significant association between the created belief's variable and the created job appropriateness variable.

The statistical results of this test proved insignificant.

The generally held social beliefs were moderate to favorable; the attitude toward job appropriateness was favorable to unfavorable; with less than 1 percent being favorable. The fact that these two variables remain independent of each other indicates that egalitarian social beliefs can be held; yet the same individual can be unfavorable toward specific jobs, if these jobs are considered inappropriate to the specific role of women. It is noted that the 61 percent of the sample held moderate views toward job appropriateness. It is quite possible that exposure to the military

TABLE 4.36

SOCIAL BELIEFS (59) SCALE SCORES VS JOB APPROPRIATENESS (61) SCALE SCORES

		LOW	MEDIUM	HIGH	RAW TOTALS
		LOW	MEDIUM	HIGH	
MEDIUM		30 (24.8%)	38 (31.4%)	1 (.8%)	69 (59%)
HIGH		16 (13.2%)	36 (29.8%)	52 (43%)	
COLUMN TOTALS		46 (38%)	74 (61.2%)	1 (.8%)	121 (100%)
Raw Chi Square	2.98542	2 Degrees of Freedom		Significance Level	.2248
Cramer's V				Cases	121

woman on the job will sway this group towards more positive attitude toward Army women. The null hypothesis is supported by the results of this test.

SOCIAL BELIEFS SCALE SCORES COMPARED WITH SOURCE OF COMMISSION

The null hypothesis to be tested is that there is no significant relation between social beliefs and source of commission.

There is no significant statistical result from this test.

Again, no cases of unfavorable social beliefs existed among the sample. Less than 1 percent expressed a highly favorable attitude; perhaps because those who were professional appointees may have had exposure to exceptional female colleagues, which would support the proposition that "women can do anything." This belief would be very credible to those who had been so socialized in a competitive academic environment. It is interesting to note that those who expressed highly favorable views (and were educated in an all-male environment at USMA) totalled more than the direct commission (1.5 percent), proportionately. This could be because after commissioning, the direct

TABLE 4.37

SOCIAL BELIEFS SCALE SCORES VS ITEM 1 (SOURCE OF COMMISSION)

		USMA	ROTC	OCS	DIRECT COMMISSION	PROF APPOINTMENT	ROW TOTALS
		LOW					
MEDIUM	14 (10.7%)	39 (29.8%)	15 (11.5%)	7 (5.3%)			75 (57.3%)
HIGH	7 (5.3%)	32 (24.4%)	14 (10.7%)	2 (1.5%)			56 (42.7%)
COLUMN TOTALS	21	71 (16%)	29 (22.1%)	9 (6.8%)	1 (.8%)		131 (100%)
Raw Chi Square	4.16768	4	Degrees of Freedom				Significance Level .3838
Cramer's V	.17837						Cases 131

commissioned officer is less exposed to female colleagues in his military specialty. Since the USMA academy graduate would be more equally distributed throughout the military specialties, the respondent may have had greater opportunity for exposure to female colleagues than would the direct commissioned officer. The null hypothesis is proven in that this relationship is very weak and any association can only be deductively surmised.

SOCIAL BELIEFS SCALE SCORES COMPARED WITH MILITARY READINESS

There is no significance between these items and the association is extremely weak between social beliefs and military experience.

As previously noted, none of the sample expressed low or restricted social beliefs. Yet, among the categories of military experience, the largest group was from the combat arms category of military experience.

Within each of the categories of military experience (combat arms, combat support, combat service support and professional), the three professionals within the group of four expressed the most positive or highest social beliefs (75 percent). It would seem

TABLE 4.38

SOCIAL BELIEFS SCALY SCORES VS ITEM 4 (MILITARY EXPERIENCE)

		COMBAT ARMS	COMBAT SUPPORT	ROW TOTALS	
		COMBAT SERVICE	PROFESSIONAL		
LOW					
MEDIUM		35 (26.7%)	19 (14.5%)	20 (15.3%)	1 (.8%)
HIGH		25 (19.1%)	15 (11.5%)	13 (9.9%)	3 (2.3%)
COLUMN TOTALS		60 (45.8%)	34 (26%)	33 (25.2%)	4 (3.1%)
Raw Chi Square	1.90648	3 Degrees of Freedom			131 (100%)
Cramer's V	.12064				
				Significance Level	.5920
				Cases	131

Question 4. "My major military experience is: combat arms, combat support, combat service support, professional."

to make little difference what the major military experience of the sample has been; when compared to their social beliefs, there is a very weak relationship. The null hypothesis is supported.

SOCIAL BELIEFS SCALE SCORES COMPARED WITH WORK WITH MILITARY WOMEN

There is no relationship between the sample's social beliefs and whether they have worked with military women in the same organization.

Since 73 percent of the sample have worked with military women, it is quite possible that the experience has to some extent influenced the sample's social beliefs. If this is true, it is quite possible that the remaining 27 percent will be influenced similarly when they work with Army women. It is a positive sign that 43 percent of the sample hold high or egalitarian social beliefs toward women. There is an extremely weak relationship between social beliefs and work with military women. The null hypothesis is supported.

SOCIAL BELIEFS SCALE SCORES COMPARED WITH ATTITUDE CHANGE

As might be expected, there is a weak relationship between the social beliefs of the sample and whether

TABLE 4.39

### SOCIAL BELIEFS SCALE SCORES VS ITEM 7 (WORKED WITH MILITARY WOMEN)

		YES		NO		ROW TOTALS	
LOW							
MEDIUM	53 (40.5%)		22 (16.8%)		75 (57.3%)		
HIGH	43 (32.8%)		13 (9.9%)		56 (42.7%)		
COLUMN TOTALS	96 (73.3%)		35 (26.7%)		131 (100%)		
Raw Chi Square	34042	1	Degree of Freedom				Significance Level .5596
Cramer's V	N/A						13

Question 7. "I have worked in the same organization/unit with a military woman (or women)."

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TABLE 4-40

Social Belief Scale Scores vs Item 14 (Attitude Change)

				Strongly/ Disagree		Strongly/ Disagree		ROW TOTALS	
		Strongly/ Agree	Agree	Undecided	Disagree	Strongly/ Agree	Agree	Undecided	Disagree
LOW									
MEDIUM	8 (6.2%)	20 (15.4%)	19 (14.6%)	24	4	75			
HIGH	5 (3.8%)	5 (3.8%)	8 (6.2%)	30	7	55			
COLUMN TOTALS	13 (10%)	25 (19.2%)	27 (20.8%)	54	11	130			
Raw Chi Square	12.88673			4 Degrees of Freedom			Significance Level	.0118	
Cramer's V	.31485			Cases					.130

their attitudes had changed within the past year. This result shows that attitude change is not highly dependent upon their social beliefs and the null hypothesis is supported.

TRADITIONAL-CONTEMPORARY MIND-SETS COMPARED WITH  
CRITERION ITEMS

The null hypotheses to be tested are that there are no significant associations between the sample's traditional-contemporary mind-sets concerning women and the specific questions concerning roles for women, public opinion regarding women in combat, military readiness, social beliefs, job appropriateness, source of commission, major military experience, change in personal attitude toward military women during past year.

Table 4.41 demonstrates that 6 of the 10 relationships between mind-sets and specific criterion questions are not significant. The specific relationships which are significant between mind-sets and specific criterion items are related to women in combat, public opinion, role perception, and social beliefs. The strongest relationship which is shown is between mind-sets and role perceptions (item 58).

TABLE 4-41

TRADITIONAL-CONTEMPORARY  
Mind Sets VS CRITERION ITEMS

Item	$\chi^2$	Degrees of Freedom	Significance Level	Cramer's V	Cases
50	40.45299	8	.0000	.41938	115
53	20.60793	8	.0083	.29933	115
54	5.62640	8	.0000	.41699	115
* 58	49.73826	4	.0000	.47986	103
* 59	3.65123	2	.1611 NOT SIG	.17896	114
61	10.20921	4	.0370	.22049	103
1	4.16768	8	.5785 NOT SIG	.16961	115
4	4.24785	6	.6432 NOT SIG	.13590	103
7	3.66408	2	.1601 NOT SIG	.17850	115
14	10.61808	8	.2243 NOT SIG	.21580	115

\* Shown Previously

This supports the hypothesis that attitudes regarding what are appropriate tasks for women in the military and society is related to the social beliefs of the male, regular Army future decisionmakers. The null hypothesis to be tested were that there are no significant associations between the sample's traditional contemporary mind-sets concerning women and the specific questions concerning roles for women, public opinion regarding women in combat, military readiness, social beliefs, job appropriateness, source of commission, major military experience, or change in personal attitudes toward military women during the past year. Those null hypotheses are disproved in part.

#### MIND-SETS SCALE SCORES COMPARED WITH WOMEN IN COMBAT

This item is highly significant and unlikely to have occurred by chance. The strength of association between mind-sets and the issue of women combatants is a little below medium (.5) strength (reasonably well-established) or sound.

The largest proportion of those who disagreed that women be permitted to perform combat duty fell in the moderate attitude range. Those who fell in the restricted or low attitude range had no other

TABLE 4.42

TRADITIONAL-CONTEMPORARY SCALE SCORES VS ITEM 50 (COMBAT CRITERION QUESTION)

		STRONGLY DISAGREE	DISAGREE	UNDECIDED	AGREE	STRONGLY AGREE	ROW TOTALS
LOW						4 (3.5%)	
MEDIUM	21 (18.3%)	27 (23.5%)	11 (9.6%)	25 (21.7%)		84 (73%)	
HIGH	4 (3.5%)	5 (4.3%)	3 (2.6%)	7 (6.1%)	8 (7%)	27 (23.5%)	
COLUMN TOTALS	29 (25.2%)	32 (27.8%)	14 (12.2%)	32 (27.8%)	8 (7%)	115 (100%)	
Raw Chi Square Cramer's V	40.45299 .41938	8 Degrees of Freedom				Significance Level Cases	.0000 115

Question 50. "Women should be permitted to perform combat duty."

response than disagree. There were as many who considered themselves liberal or in the high range, who also strongly disagreed in the same proportion as did those in the restricted range. The largest number of responses fell in the moderate range overall. Among the moderates, there is revealed a fairly even distribution among strong disagreement, disagreement and agreement. Among those in the highly favorable or liberal range, there was more strong agreement and agreement than there was strong disagreement and disagreement. The distribution among the highly favorable is revealing in that even those who consider themselves egalitarian still have room for improvement since over 8 percent either strongly disagreed or disagreed. The largest percentage of indecision (9.6 percent) fell among those who were moderately egalitarian; the largest proportion of strong disagreement and disagreement can be seen among the moderately egalitarian. Compared to Table 4.40 (Social Beliefs compared with Attitude Change), the largest concentration of responses were in the highly egalitarian range. The majority agreed that their attitudes during the past year had become more favorable toward military women. This finding supports the hypothesis that there is a

dichotomy in male attitudes toward women in contemporary social roles and women performing as combatants. Further, attitudes of male regular Army future decision-makers concerning what are appropriate tasks for women in the military and society are related to the social beliefs of the male, regular Army future decision-maker. There is a significant difference between ideal, egalitarian social role perceptions for women in general and the specific military role perception of women as combatants.

#### MIND-SETS COMPARED WITH PUBLIC OPINION

The null hypothesis to be tested is that there is no significant association between the traditional-contemporary mind-sets variables and the public opinion variable.

Statistical tests have shown a weak relation between these two variables.

Those who expressed a moderate attitude toward the unrestricted role of women also agreed that public opinion would run strongly against women in combat. Though interpretation of this finding takes into consideration that this response may not represent the sample's personal opinions, but rather represents their

TABLE 4.43  
TRADITIONAL SCALE SCORES VS ITEM 53 (PUBLIC OPINION)

		STRONGLY AGREE			UNDECIDED		DISAGREE		STRONGLY DISAGREE		ROW TOTALS	
LOW		4	(3.5%)						4	(3.5%)		
MEDIUM		20	(17.4%)	54	(47%)		6	(5.2%)	4	(3.5%)		84 (73%)
HIGH		7	(6.1%)	11	(9.6%)		5	(4.3%)	3	(2.6%)	1	(.9%)
COLUMN TOTALS		31	(27%)	65	(56.5%)	11	(9.6%)	7	(6.1%)	1	(.9%)	115 (100%)

Raw Chi Square 20.60793 3 Degrees of Freedom Significance Level .0083  
Cramer's V .29933 Cases 115

Question 53. "Public opinion would run strongly against deploying women as combatants."

response to the question as stated; it may be said that 47 percent of the sample would be amenable to mandated change, particularly if supported by improved public opinion.

It was expected that the majority of the sample would believe that public opinion would be against women combatants since that seems to be the predominate view as a result of media conditioning as well as social conditioning. It has not yet been determined whether or not that is in fact, the opinion of the American public to a large degree. It may be appropriate for the Army to sample public opinion before a crisis occurs that requires mobilization.

#### MIND-SET COMPARED WITH MILITARY READINESS

The null hypothesis to be tested is that there is no significant association between the traditional-contemporary mind-set variable and the military readiness variable.

Statistical results show a somewhat less than middle point on the scale between no relationship and a perfect relationship between these two variables.

This result again reflects the restricted mind-set or interpretation of women's roles which accounted

TABLE 4.44

TRADITIONAL-CONTEMPORARY SCALE SCORES VS ITEM 54 (MILITARY READINESS)

		STRONGLY AGREE			UNDECIDED			DISAGREE		STRONGLY DISAGREE		ROW TOTALS
LOW		2 (1.7%)	1 (.9%)					1 (.9%)		4	(3.5%)	
MEDIUM		22 (19.1%)	32 (27.8%)	15 (13%)				15 (13%)				
HIGH		1 (.9%)	4 (3.5%)		4 (3.5%)			10 (8.7%)	8 (7%)	27	(23.5%)	
COLUMN TOTALS		25 (21.7%)	37 (32.2%)	19 (16.5%)	26 (22.6%)			8 (7%)		115	(100%)	

Raw Chi Square 39.99161 8 Degrees of Freedom Significance Level .0000  
 Cramer's V .41699 Cases 115

Question 54. "Military readiness is a critical and uncompromisable element that should not be experimented with by deploying women as combatants.

for 3.5 percent of the sample. A moderate mind-set for the majority and a highly favorable mind-set by 24 percent toward the figural interpretation that women are capable of doing anything to include combat. From this array, a mission-oriented, conservative concern for military readiness can be readily discerned. This same conservative concern manifests itself in moderate attitudes toward the capabilities of women with regard to mind-sets. Those who are moderate in their responses may feel that why because of their professional orientation to resist any compromise to readiness. This may be due to stringent reporting requirements and constant readiness evaluations used to judge their effectiveness as managers. Experimentation with any concept which would create a less than perfect readiness posture is not acceptable within the traditional military mind-set; this is reinforced by the present Army readiness reporting system.

#### MIND-SETS SCALE SCORES COMPARED WITH JOB APPROPRIATENESS

The association between these two variables is less than 50 percent chance relationship and the strength of the relationship is fairly weak. This relationship does show the independence between mind-sets and job appropriateness.

TABLE 4.45

TRADITIONAL-CONTEMPORARY MIND-SETS (60) SCALE SCORES VS JOB APPROPRIATENESS  
(61) SCALE SCORES

		LOW	MEDIUM	HIGH	ROW TOTALS
COLUMN TOTALS	TOTALS	3 (2.9%)	1 (1%)	4 (3.8%)	
		34 (32.4%)	40 (38.1%)	1 (1%)	75 (71.4%)
HIGH		4 (3.8%)	22 (21%)	26 (24.8%)	
		41 (39%)	63 (60%)	1 (1%)	105 (100%)

Raw Chi Square 10.20921 4 Degrees of Freedom  
Cramer's V .22049 Significance Level 1 .0370  
Cases 105

There were no individuals with restricted mind-sets who had an egalitarian view of job appropriateness. The majority of the sample scored in the moderately egalitarian range of attitude for both mind-sets and job appropriateness. There was only one response which exceeded the moderate range and indicated that women could do anything men can do. It should be noted that even those who scored highly favorably (high range) did not unanimously feel that women can do anything men can do. It is also revealing to note that those with a moderate mind-set (almost one third or 32.4 percent) also held a restricted view of job appropriateness for women's roles.

#### MIND-SETS COMPARED WITH SOURCE OF COMMISSION

The null hypothesis to be tested is that there is no significant association between the traditional-contemporary mind-set variable and the source of commission variable.

The statistical result showed no significance and only a very weak relationship between these variables; therefore, this result could have occurred more than half the time by chance.

TABLE 4.46

TRADITIONAL-CONTEMPORARY SCALE SCORES VS ITEM 1 (SOURCE OF COMMISSION)

				DIRECT COMMISSION	PROF APPOINTMENT	ROW TOTALS
USMA	ROTC	OCS				
LOW			2 (1.7%)	2 (1.7%)	4 (3.5%)	
MEDIUM			13 (11.3%)	49 (42.6%)	16 (13.9%)	
HIGH			7 (6.1%)	14 (12.2%)	3 (2.6%)	
COLUMN TOTALS			20 (17.4%)	65 (56.5%)	21 (18.3%)	
					8 (6.9%)	1 (.9%)
						115 (100%)

Raw Chi Square 6.61660    8 Degrees of Freedom    Significance Level .5785  
 Cramer's V .16961    Cases 115

Question 1. "My source of commission is: USMA, ROTC, OCS, direct commission, or professional appointment."

This result shows that mind-sets are not necessarily related to source of commission. Where liberalization through a more co-educational educational environment was thought to be a significant discriminator of attitude, this rationale does not necessarily hold true in the light of these tests. The fact that the mind-set variable and the source of commission variable are independent of each other seems to indicate that while pre-commissioning socialization may be a reliable discriminator with regard to mind-sets concerning women in combat, the source of commission is not. USMA, direct commissions and professionals reported no mind-sets of a highly restricted nature; yet, ROTC (where women could have been academic and professional peers, prior to commissioning) and OCS reflect mind-sets of a highly restricted nature with regard to women in combat. Perhaps the macho mind-set of the OCS candidate and the campus role of the females seen by most ROTC students may have been more influential to mind-sets than the all-male tradition in the USMA environment which prevailed during the years this sample was being educated and socialized prior to commissioning.

### MIND-SETS COMPARED WITH MAJOR MILITARY EXPERIENCE

The null hypothesis to be tested is that there is no significant association between traditional-contemporary mind-sets and major military experience.

The statistical tests showed that the relationship was very weak and that this relationship could have resulted by chance at least 64 percent of the time. This can be interpreted to mean that there is more likely to be similarity between the sample's frame of reference or mind-set than between their major military experience.

This table appears to indicate that those in the combat arms felt that women could be utilized either way to a larger degree than those in the other support and professional specialties. Perhaps those in the combat arms experience effective guerilla warfare tactics being conducted in the last armed conflict to a large and effective degree by women, children and the elderly. Such an experience would tend to change the perception that physical strength is essential to performing combat missions.

TABLE 4.47

TRADITIONAL-CONTEMPORARY SCALE SCORES VS ITEM 4 (MAJOR MILITARY EXPERIENCE)

		COMBAT ARMS	COMBAT SUPPORT	COMBAT SERVICE SUPPORT	ROW PROFESSIONAL TOTALS
		LOW	2 (1.7%)	2 (1.7%)	4 (3.5%)
		MEDIUM	37 (32.2%)	22 (19)	84 (73%)
		HIGH	11 (9.6%)	10 (8.7%)	6 (5.2%)
		COLUMN TOTALS	50 (43.5%)	32 (27.8%)	30 (26.1%)
Raw Chi Square	4.24785	6 Degrees of Freedom			Significance Level .6432
Cramer's V	.13590	Cases			<sup>115</sup> <sub>115</sub>

Question 4. "My major military experience is: combat arms, combat support, combat service support, professional."

MIND-SETS COMPARED WITH WORK WITH A MILITARY WOMAN

The null hypothesis to be tested is that there is no significant association between traditional-contemporary mind-sets and the variable representing worked with a military woman (women).

The relation proved statistically insignificant with a likelihood of occurring 16 percent of the time through chance.

The majority had worked with military women and they represented the moderate view that women could be either restricted or unrestriced within the framework of their specific circumstances.

The potential exists to greatly increase the number (now 20 percent) who hold high or favorable mind-sets toward women as the 28 percent who have not worked with military women obtain the experience and exposure. The more positive or egalitarian mind-sets will be contingent upon favorable impressions from the performance of women; hence the more likely the individual would be to change to a more egalitarian mind-set. The null hypothesis is supported in that an extremely weak association exists between mind-sets and work experience with a military woman. This could mean that the basis

TABLE 4.48

TRADITIONAL-CONTEMPORARY SCALE SCORES VS ITEM 7 (WORKED WITH MILITARY WOMEN)

		ROW TOTALS		
		YES	NO	
		LOW	2 (1.7%)	4 (3.5%)
MEDIUM		58 (50.4%)	26 (22.6%)	84 (73%)
HIGH		23 (20%)	4 (3.5%)	27 (23.5%)
COLUMN TOTALS		83 (72.2%)	32 (27.8%)	115 (100%)

Raw Chi Square 3.66408 2 Degrees of Freedom  
 Cramer's V .17850 Cases 1601  
 115

Question 7. "I have worked in the same organization/unit with a military woman (or women)."

of their mind-sets is other factors outside the realm of their own personal experiences in a military setting.

#### MIND-SETS COMPARED WITH ATTITUDE CHANGE

The null hypothesis to be tested is that there is no significant association between traditional-contemporary mind-sets and attitude change.

A weak relationship is shown. The fact that attitude change is independent of mind-sets is not surprising since there are so many factors which could influence attitude change as demonstrated earlier.

#### JOB APPROPRIATENESS SCALE SCORES COMPARED WITH CRITERION ITEMS

The null hypotheses to be tested are that there are no significant associations between the sample's response to questions of job appropriateness concerning women and the specific questions concerning women in combat, public opinion, military readiness, general role perceptions, traditional-contemporary mind-sets, source of commission, major military experience, change in personal attitude toward military women during past year.

TABLE 4.49

TRADITIONAL-CONTEMPORARY SCALE SCORES VS ITEM 14 (ATTITUDE CHANGE)

		STRONGLY DISAGREE	DISAGREE	UNDECIDED	AGREE	STRONGLY AGREE	ROW TOTALS
		LOW	1 (.9%)	2 (1.8%)	1 (.9%)	4 (3.5%)	
		MEDIUM	6 (5.3%)	18 (15.8%)	23 (20.2%)	33 (28.9%)	4 (3.5%) 84 (73.7%)
		HIGH	3 (2.6%)	3 (2.6%)	4 (3.5%)	12 (10.5%)	4 (3.5%) 26 (22.8%)
COLUMN TOTALS		110 (8.8%)	23 (20.2%)	27 (23.7%)	46 (40.4%)	8 (7%)	114 (100%)
Raw Chi-Square	10.61808	8	Degrees of Freedom			Significance Level	.2243
Cramer's V	.221580					Cases	.114

Even though six of the ten relationships had not occurred by chance, there were weak relationships shown for the most part between these variables.

The job appropriateness scale score items show there is no significance relationship between the four items dealing with social beliefs, source of commission, major military experience, and change in personal attitude toward military women during the past year. The remaining six items show a weak to slightly significant relationship to job appropriateness. They are women in combat, public opinion, military readiness, role perceptions, social beliefs, and work in the same organization with a military woman. This suggests that these slight relationships are not due to chance but may be due to specific attitudes relating to women in specific military settings. The null hypotheses are accepted in part with regard to the associations between the specific criterion items concerning appropriate tasks for military women.

The job appropriateness scale score was comprised of items relating to specific military jobs either directly or in support of the management of violence rather than jobs in a business environment. The sample answered as might have been expected when

TABLE 4.50

## JOB APPROPRIATENESS VS CRITERION ITEMS

ITEM	$\chi^2$	DEGREES OF FREEDOM	SIGNIFICANCE LEVEL	CRAMER'S V	CASES
50	36.25843	8	.0000	.38549	122
53	34.81635	8	.0000	.37774	122
54	27.26276	8	.0006	.33426	122
58*	24.20743	4	.0001	.32442	115
59*	2.98542	2	.2248	.15708	121
60*	10.20921	4	.0370	.22049	105
6	6.14398	8	.6311	.15868	122
4	10.09383	6	.1208	.22039	122
7	6.05580	2	.0484	.22280	122
14	9.27213	8	.3199	.19574	121

\*Shown previously

comparing social beliefs with specific military roles. Of the sample 45.5 percent had major military experience in the combat arms, 25.8 percent combat support and 25.8 percent in combat service support military specialties. This would indicate that the majority of these individuals had more likely served in military maneuver units which have traditionally been totally male units.

JOB APPROPRIATENESS SCALE SCORES COMPARED WITH COMBAT CRITERION QUESTION

The null hypothesis to be tested is that there is no significant association between job appropriateness and the combat criterion question of permitting women in combat.

It may be said that mind-sets were not predictive of the sample's response on the issue of permitting women in combat. Although it is unlikely that this association could have occurred by chance, only a weak relationship exists between these two variables. Less than 1 percent of the sample held a highly egalitarian attitude toward job appropriateness; almost 37 percent agreed or strongly agreed with opening combatant positions to women. Even among the 38 percent who held

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a restricted or negative view of job appropriateness for women in general, 7 percent agreed to women combatants.

The lack of credibility of women in non-traditional roles tends to restrict their full utilization. Some women object to these non-traditional roles as these skills are not transferrable to civilian skills. People in general are joining the military for job opportunity rather than for patriotic or sentimental reasons; therefore, they are becoming less and less committed to combat related MOS because the situation does not require a combat oriented mind-set for either males or females. The primary reason Army quotas are being met may well be because the civilian job market is waning. The basic philosophy that no matter what specialty (i.e., bandsman, clerk, cook) the soldier is basically required to defend himself or may become a combat soldier no matter how far from the brigade rear boundary still holds now more than ever considering improved and more threatening enemy capabilities. This is especially true when enemy airborne capabilities and improved weapons systems facilitate the enemy's ability to penetrate deeply and rapidly into our rear as possible. Considering this and the preparation and training required for an effective combat role, men generally

TABLE 4.51  
JOB APPROPRIATENESS SCALE SCORES VS ITEM 50 (COMBAT CRITERION QUESTION)

		STRONGLY DISAGREE	DISAGREE	UNDECIDED	AGREE	STRONGLY AGREE	ROW TOTALS
LOW		25 (20.5%)	13 (10.7%)	1 (.8%)	7 (5.7%)	46 (37.7%)	
MEDIUM		9 (7.4%)	17 (13.9%)	12 (9.8%)	29 (23.8%)	8 (6.6%)	75 (61.5%)
HIGH					1 (.8%)	1 (.8%)	
COLUMN TOTALS		34 (27.9%)	30 (24.6%)	13 (10.7%)	37 (30.3%)	8 (6.6%)	122 (100%)
Raw Chi Square Cramer's V	36.25843 .38549	8	Degrees of Freedom Cases			Significance Level Cases	.0000 122

feel women are not capable of filling non-traditional roles simply because they probably have not seen women function in these roles to date.

#### JOB APPROPRIATENESS COMPARED WITH PUBLIC OPINION

The null hypothesis to be tested is that there is no significant association between the job appropriateness created variable and the public opinion variable. A weak relationship is shown.

Although men may not personally feel that women are too weak for battle or too emotionally unstable to withstand the stresses of battle, most of those having a restricted view of women in general strongly agreed that public opinion would run strongly against deploying women as combatants. This opinion has come basically from social conditioning to protect women from brutalization and demoralizing situations. The possibility that women might go through such battle induced situations, points up more of the reason why women should not be deprived of the basic skills to be active participants in their own defense. These responses have not been separated to distinguish feelings toward offensive or defensive roles for women. The reaction to be question appears to be largely in

TABLE 4-52  
JOB APPROPRIATENESS SCALE SCORES VS ITEM 53 (PUBLIC OPINION)

		STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE	ROW TOTALS
		LOW	22 (18%)	20 (16.4%)	2 (1.6%)	2 (1.6%)	46 (37.7%)
		MEDIUM	12 (9.8%)	51 (41.8%)	8 (6.6%)	3 (2.5%)	75 (61.%)
		HIGH				1 (.8%)	1 (.8%)
COLUMN TOTALS			34 (21.9%)	71 (58.2%)	10 (8.2%)	6 (4.9%)	122 (100%)
Raw Chi Square	34.81635		8	Degrees of Freedom		Significance Level	.0000
Cramer's V	.37774			Cases			122

Question 53. "Public opinion would run strongly against deploying women as combatants."

TABLE 4-52  
JOB APPROPRIATENESS SCALE SCORES VS ITEM 53 (PUBLIC OPINION)

	STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE	ROW TOTALS
LOW	22 (18%)	20 (16.4%)	2 (1.6%)	2 (1.6%)	46 (37.7%)	
MEDIUM	12 (9.8%)	51 (41.8%)	8 (6.6%)	3 (2.5%)	1 (.8%)	75 (61.0%)
HIGH				1 (.8%)	1 (.8%)	
COLUMN TOTALS	34 (21.9%)	71 (58.2%)	10 (8.2%)	6 (4.9%)	1 (.8%)	122 (100%)
Raw Chi Square	34.81635	8 Degrees of Freedom				Significance Level .0000
Cramer's V	.37774					Cases 122

Question 53. "Public opinion would run strongly against deploying women as combatants."

the light of generally protecting women from the horrors of war.

#### JOB APPROPRIATENESS COMPARED WITH MILITARY READINESS

The null hypothesis to be tested is that there is no significant difference between the job appropriateness variable and the military readiness variable. The relationship is significant through weak.

The way an individual feels about what would be an appropriate job for a woman would unlikely influence how he feels about experimenting with military readiness. Nevertheless, the 47.5 percent who either agree, strongly agree or are undecided represent a quite large proportion who might be susceptible to exploring more effective means of providing increased military readiness through the use of women in nontraditional roles.

#### JOB APPROPRIATENESS COMPARED WITH SOURCE OF COMMISSION

The null hypothesis to be tested is that there is no significant association between job appropriateness and source of commission. The relationship is not significant and is very weak.

This result indicates that there is little relationship between the individual's social conditioning

TABLE 4.53  
JOB APPROPRIATENESS SCALE SCORES VS ITEM 54 (MILITARY READINESS)

		STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE	ROW TOTALS
LOW	20 (16.4%)	14 (11.5%)	4 (3.3%)		8 (6.6%)		46 (37.7%)
MEDIUM	7 (5.7%)	22 (18%)	18 (14.8%)	21 (17.2%)	7 (5.7%)	75 (61.5%)	
HIGH		1 (.8%)			1 (.8%)		
COLUMN TOTALS	28 (23%)	36 (29.5%)	22 (18%)	29 (23.8%)	7 (5.7%)	122 (100%)	

Raw Chi Square 27.26276 8 Degrees of Freedom Significance Level .0006  
Cramer's V .33426 Cases 122

Question 54. "Military readiness is a critical and uncompromisable element that should not be experimented with by deploying women as combatants."

TABLE 4.54

JOB APPROPRIATENESS SCALE SCORES VS ITEM 1 (SOURCE OF COMMISSION)

				COMMISSION	APPOINTMENT	ROW TOTALS
		USMA	ROTC	OCS		
LOW	7 (5.7%)	25 (20.5%)	12 (9.8%)	2 (1.6%)	46	(37.7%)
MEDIUM	14 (11.5%)	41 (33.6%)	13 (10.7%)	6 (4.9%)	75	(61.5%)
HIGH			1 (.8%)		1	(.8%)
COLUMN TOTALS	21 (17.2%)	66 (54.1%)	26 (21.3%)	8 (6.6%)	1	(.8%)
Raw Chi Square	6.14398	8 Degrees of Freedom			122	(100%)
Cramer's V	.15868					

Significance Level .6311  
Cases 122

Question 1. "The source of my commission was: USMA, ROTC, OCS, direct commission, professional appointment."

prior to commissioning regarding what jobs are appropriate for women.

JOB APPROPRIATENESS SCALE SCORES COMPARED WITH MAJOR  
MILITARY EXPERIENCE

The null hypothesis to be tested is that there is no significant association between job appropriateness and military experience.

There is neither a significant relationship nor a strong association between how the sample felt about job appropriateness for women and the sample's major military experience. It would seem that the individual's social conditioning is more likely to be the determining factor than the type of military experience of the respondent.

JOB APPROPRIATENESS SCALE SCORES COMPARED WITH WORK WITH  
MILITARY WOMEN

The null hypothesis to be tested is that there is no significant association between job appropriateness and work with military women. This relationship is neither significant nor is the association strong.

TABLE 4.55  
JOB APPROPRIATENESS SCALE SCORES VS ITEM 4 (MILITARY EXPERIENCE)

	COMBAT ARMS	COMBAT SUPPORT	COMBAT SERVICE SUPPORT	ROW TOTALS
LOW	28 (23%)	10 (8.2%)	8 (6.6%)	46 (37.7%)
MEDIUM	29 (23.8%)	21 (17.2%)	21 (17.2%)	4 (3.3%)
HIGH			1 (.8%)	75 (61.5%)
COLUMN TOTALS	57 (46.7%)	32 (26.2%)	29 (23.8%)	122 (100%)

Raw Chi Square 10.09383 6 Degrees of Freedom Significance Level .1208  
Cramer's .20339 Cases 122

Question 4. "My major military experience is: combat arms, combat support, combat service support or professional."

TABLE 4.56

JOB APPROPRIATENESS SCALE SCORES VS ITEM 7 (WORKED WITH MILITARY WOMEN)

		ROW TOTALS	
		YES	NO
LOW	30 (24.6%)	16 (13.1%)	46 (37.7%)
MEDIUM	60 (49.2%)	15 (12.3%)	75 (61.5%)
HIGH		1 (.8%)	1 (.8%)
COLUMN TOTALS	90 (73.8%)	32 (26.2%)	122 (100%)

Raw Chi Square 6.05580      2 Degrees of Freedom      Significance Level .0484  
 Cramer's V .22280      Cases 122

Question 7. "I have worked in the same organization/unit with a military woman (or women)."

It is of note that although 74 percent had worked with military women, none held high or positive egalitarian attitudes regarding jobs appropriate for women in general. Of those who had not worked with military women, there was one reported case of high favorability. The null hypothesis is supported.

JOB APPROPRIATENESS SCALE SCORES COMPARED WITH ATTITUDE CHANGES

The null hypothesis to be tested is that there is no significant association between job appropriateness and attitude change. The association is extremely weak.

More than half of the sample agreed that their attitudes had changed to become more favorable within the past year. More of the moderates than any other group reported a more favorable attitude change; however, the strength of the association between attitude change and feelings on job appropriateness is extremely weak.

TABLE 4.57  
JOB APPROPRIATENESS SCALE SCORES VS ITEM 14 (ATTITUDE CHANGE)

		STRONGLY DISAGREE	DISAGREE	UNDECIDED	AGREE	STRONGLY AGREE	ROW TOTALS
LOW	8 (6.6%)	7 (5.8%)	11 (9.1%)	18 (14.9%)	1 (.8%)	45 (37.2%)	
MEDIUM	4 (3.3%)	16 (13.2%)	15 (26.4%)	32 (26.4%)	8 (6.6%)	75 (62%)	
HIGH				1 (.8%)		1 (.8%)	
COLUMN TOTALS	12 (9.9%)	23 (19%)	26 (21.5%)	51 (42.1%)	9 (7.4%)	121 (100%)	

Raw Chi Square 9.27212 8 Degrees of Freedom  
Cramer's V .19574 Significance Level .3199  
Cases 121

Question 14. "During the past year, my attitude toward women in the military has become favorable."

## CHAPTER IV

### PART IV

#### SUMMARY

This chapter provides a summary of the measures of interrelationships from the research effort which are displayed at Table 4.58. The significance level of .0000 indicates there is only 1 chance in 10,000 that these relationships could have occurred by chance. The Cramer's V statistic of 0 indicates that there is no relationship between variables whereas one(1) is the strongest relationship between variables. Five of the fourteen role perceptions items were beyond .05 which indicates that it is highly unlikely that these were chance relationships.

An examination of the summary of interrelationships reveals that the relationship between readiness (item 54) and role perceptions is the strongest relationship ( $V = .61060$ ) shown by this research. In addition, although job appropriateness was not so strongly related to readiness, the relationship was, nevertheless, statistically significant. There was, however, no

TABLE 4.58

## SUMMARY OF MEASURES OF INTERRELATIONSHIPS

ITEM	ROLE PERCEPTIONS	SOCIAL BELIEFS			TRADITIONAL-CONTEM- PORARY MIND SETS			JOB APPROPRIATE- NESS		
		Sig Level	Cramer's V	Sig Level	Cramer's V	Sig Level	Cramer's V	Sig Level	Cramer's V	
Combat (50)	.0000	.54563	.1696	.22145	.0000	.41938	.0000	.0000	.38549	
Public Opinion (53)	.0000	.44427	.7397	.12289	.0083	.29933	.0000	.0000	.37774	
Readi- ness(54)	.0000	.61060	.2288	.20724	.2288	.20724	.0006	.0006	.33426	
Role(58)	N/A	N/A	.0804	.20162	.0000	.47986	.0001	.0001	.32442	
Social Beliefs (59)	.0804	.20162	N/A	N/A	.1611	.17896	.2248	.2248	.15708	
Mind- sets(60)	.0000	.47986	.1611	.17896	N/A	N/A	.0370	.0370	.22049	
Jobs(61)	.0001	.32442	.2248	.15708	.0370	.22049	N/A	N/A	N/A	
Commis- sion(1)	.7034	.14828	.3838	.17837	.3838	.17837	.6311	.6311	.15363	
Experi- ence(4)	.5893	.13639	.5920	.12064	.6432	.13590	.1208	.1208	.20332	
Same Or- ganization (2)	.1369	.17836	.5596	.06841	.1601	.17850	.0484	.0484	.22280	
Attitude (14)	.0006	.33214	.0118	.31485	.2243	.21580	.3199	.3199	.42574	

significant relationship either between social beliefs and readiness or mind-sets and readiness. This suggest that how the sample felt about the effect of women on military readiness primarily reflected their concern about the ability of women to perform the Army mission. In other words, social beliefs and mind-sets provide a frame of reference regarding women in society; although they are not significantly related to the issue of military readiness.

The issue of permitting women in combat (item 50) shows a strong relationship to role perceptions ( $V = .54563$ ), a fairly strong relationship to mind-set ( $V = .41938$ ), and a moderate relationship ( $V = .38549$ ) to job appropriateness.

Both the issues of combat (item 50) and readiness (item 54) reflect the attitudes of the sample toward women's capabilities more than their attitudes toward the place of women in society since the social beliefs scale scores are not at all related to either the issues regarding women in combat.

The issue of whether public opinion would run strongly against deploying women in combat (item 53) shows a moderate relationship to role perceptions of women in general ( $V = .44427$ ) and job appropriateness

( $V = .37774$ ). Neither social beliefs nor mind-sets showed a significant relationship to public opinion about women in combat. This means that the sample's personal frame of reference or social beliefs were not highly dependent upon public opinion.

Role perceptions showed a fairly strong relationship (.47986) to mind-sets (item 60) which means that again, their view of the abilities and capabilities of women are significant to their frame of reference and reflect their views of conventional propriety. Neither were there significant relationships between mind-sets (item 60) and either social beliefs or job appropriateness.

Job appropriateness (item 61) had four out of six relationships which could not be related to chance. However, job appropriateness shows no significant relationship ( $V = .32442$ ) to role perceptions, or to either social beliefs or mind-sets.

None of the relationships were significant to source of commission (item 1). Major military experience (item 4) also showed extremely weak relationships. Work in the same organization with a military woman (item 7) showed extremely weak relationships. There was a moderate relationship between attitudes which

have changed to become more favorable within the past year (item 14) and both general role perceptions and social beliefs. This could mean that the sample's frame of reference regarding women in society and their views of women's attitudes and capabilities as they pertain to conventional propriety may be moderately related to a change toward a more favorable impression of military women.

The results of this research to include the review of the literature have a number of implications for senior levels of management and decisionmaking in regard to the issue of women as combatants. The most obvious implication is that, to the extent possible, the actual findings of this study to include the responses to the specific attitude questions should be actively and widely disseminated as well as translated into positive efforts to reduce the professional distance between those men and women colleagues who are of equal value to the military.

A detailed comparison of how one relationship was associated with the other, i.e., social beliefs, traditional-contemporary mind-sets and job appropriateness reveals that the sample's concern is more strongly dependent upon role perceptions major variable. This

may probably be because the abilities and capabilities of women strongly relate to the sample's feelings concerning whether the Army's mission will be accomplished if women are assigned to non-traditional roles. Thus, upon close examination, the strong relationship between role perception and military readiness represents the most significant finding of this research.

## CHAPTER V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### PART I. SUMMARY

The purpose of this research, as stated in Chapter I, was to seek to determine the degree to which there are patterns of attitudes held by male Army officers, concerning their perceptions of women in the military. Further, this research sought to determine to what extent attitudes relate to demographic variables or background characteristics. This was accomplished by an examination based upon two hypotheses. The first hypothesis was that there is a significant difference between ideal, egalitarian social role perceptions for women in general and military role perceptions of women as combatants. The second hypothesis was that attitudes regarding what are appropriate tasks for women in the military and society are related to the social beliefs of the male Regular Army future decision-makers.

The research proceeded from a thorough examination of the literature from antiquity as well as recent studies pertaining to those issues emerging from the concept of women as combatants. The literature search

reviewed in Chapter II reviewed the historical, cross-cultural and contemporary perspectives on women as combatants. The research continued to an analysis of attitudes of male, Regular Army officer students of the United States Army Command and General Staff College Class of 1978, concerning women in combat. Chapter III describes the methodology which provides a baseline for the assessment of future requirements to influence those men who are in the top positions of leadership and decision making potential toward obtaining more favorable attitudes concerning expanded roles for military women, to include combat.

The sampled officers are from a middle management career path and can be expected to become closely involved in setting long-term directions as well as developing policies for the most senior levels of Army management.

Chapter IV dealt with a detailed examination of the survey results. This study also weighed the various relationships between contemporary mind-sets and traditional mind-sets and their subjective influence upon future policy development by middle career managers based upon the assumption that a large portion of the sampled population would reach the more senior decision making levels of management within the next decade.

It was found students who tended to agree with one item in the scale, designed for the study, tended to agree with other items, and for similar reasons. Nevertheless, student attitudes toward women were not unidimensional. There was more than one common pattern of student responses to a given set of items; there were also several subgroups of students who held different patterns of attitudes.

A concise summary of the investigation follows to reiterate the more important statistical findings and to present the major conclusions drawn from these findings. The major purpose of this study, to determine attitudes toward women as combatants, was accomplished. A secondary purpose, the construction of an attitude measurement instrument, which would measure attitudes of middle-career level officers toward this issue, was also accomplished. The attitude measurement instrument used in this study to gather data, can be used for replication of this study as follow up research.

The most significant findings reported in Chapter IV of this study indicate that seventy-four percent of the sample had served with military women in the same unit. As many as 78 percent of the sample had been professionally exposed to military women on the job as recently as within

the last 24 months. It is likely that those 78 percent have seen military women performing primarily traditional jobs, e.g., typist, medic, or similar administrative support jobs. It can be assumed that although women have been increasing in numbers in units within the past five years; the majority were assigned traditional jobs, since nontraditional positions are primarily a phenomena of the past five years. One could expect that combat role perceptions will change dramatically in the near future since 48 percent of the sampled population either strongly agreed, agreed or were undecided that women should be permitted to perform combat duty. While a majority of the respondents may have been exposed to junior grade enlisted women and possibly inexperienced lieutenants, it is unlikely that the sample population has ever been exposed to the professional career woman (senior noncommissioned officer and senior officer) who are inclined to emphasize competence and task achievement as the basis for establishing relationships with men at work as peers, bosses and subordinates. Professionals with comparable skills and a demonstrable level of competence tend to gain respect on the basis of knowledge, skill or experience.

The single underlying concern of the sample, that women as combatants would reduce the unit's combat

effectiveness, was found to be a critical issue. The fear was highly correlated with general role perceptions of women especially in military settings as shown by the high correlation between the major variable (role perceptions) and the specific issue of experimentation with military readiness. The results show that these mid-career level officers have a conservative, traditional opinion about the proper role of women.

In comparison to the results of this study, the West Point study of their cadets surveyed during late August 1975 showed that cadets have a more conservative, traditional opinion about the proper role of women than do college students in general, being about as "traditional" as an older generation of men in the general population. The Command and General Staff College student also tended to attribute certain traits, limitations and capabilities to females which are not supported by facts. West Point cadets, tended to believe in two different types of stereotyped female (the gentle kind, and the talkative emotional kind). Cadets believed that sex discrimination could be reduced (but never completely eliminated), but only by individual females striving for achievement, and not by group protests of females. Although their beliefs regarding the management of women were consistent with some of the management literature, cadets were quite

negative toward women in the Army. The same attitude prevailed among members of the Command and General Staff College Class, 1978. Of those officers who indicated that they had worked with women as recently as the past twenty-four months, there was a strongly traditional attitude that women should not be assigned to a maneuver unit during wartime, even if physically qualified. An overwhelming majority felt that women should not be permitted to perform combat duty.

The West Point cadets were very pessimistic about the impact of women cadets on pride and discipline; the Staff College officers students felt they would not be proud if women were assigned as leaders in their combat unit.

The survey results highlighted five significant issues dealing with the differences and relationships concerning role perceptions, mind-sets, social beliefs about women, job appropriateness, and role perceptions related to situational criteria involving military settings. The questions posed to the respondents required that they respond to situational implications which would demonstrate a tendency toward a particular decision in a specific situation.

In summary, the first hypothesis of this study (that there was a significant difference between ideal

egalitarian role perceptions for women in general and military role perceptions of women in combat) was proven in that it was established that there was significant incongruence in attitudes between the contemporary and traditional mind-sets. But when asked how they felt about women soldiers in combat, the sample reflected a negative or traditional mind-set. The Command and General Staff College sample had more exposure to military women than other study samples such as the West Point cadets. Over one half the sample (52.3 percent) felt women should not be permitted to be combatants (but 29.5 percent were undecided and 26.3 percent agreed). Nearly 28 percent (table 37, chapter IV), expressed comments reflecting a strong degree of prejudice as defined in chapter one.

The second hypothesis (that attitudes regarding what appropriate tasks for women in the military and society are related to the social beliefs of the sample) was also proven. Items concerning professional exposure, (i.e., "worked with a military woman", "length of time served with a military woman" and "ever served in combat under fire") strongly correlated with attitudes toward women, with certain exceptions. In general older officers were less

reactionary in their attitudes toward women. On items dealing with sexual morality, however, many personality variables and personal values are implicated. There may be other specific items which involve motivations deeply rooted in the personality, which will be uncovered in further analysis. So far, the attitudes reflect deeply-rooted traditional mind-sets. However, differences among the sample population in attitudes toward women's social roles and women in combat were not strongly associated with the demographic variables (source of commission; rank; age; military experience; education level or marital status).

## CHAPTER V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### PART II. CONCLUSIONS

Insofar as the obtained scores used in this investigation represent the abilities of the students surveyed, and insofar as the sample of students is representative, the following conclusions may be drawn:

1. In general, when conflicts in gender role appropriateness exist between traditional roles and contemporary roles for women, the traditional roles for women are favored.
2. Readiness of maneuver units seems to have a great bearing on the negative attitude toward women in combat units.
3. Regarding women in combat, the tendency is that women should not be combatants.
4. Although the sample has come a long way toward eliminating excessive restraint against women combatants, there is indicated a restrained enthusiasm for permitting women in combat among the most conservative and moderate segments of the sample. This tendency was not shown among the liberals.

5. Those holding the most liberal or favorable views also tend to feel strongly that women should be permitted to perform combat duty.

6. The majority of the population agree that women would affect readiness.

7. The majority of the sample held grave doubts concerning the abilities of women.

8. The majority perceived that the needs, goals, abilities and potentials of women would not sufficiently mesh with those of the organization to inspire unit pride.

9. The majority agreed with the contemporary social belief that women should have all the privileges and responsibilities that men have which indicates that military role perceptions and social role perceptions are independent of each other.

10. In general, when conflicts in gender role appropriateness exist between traditional roles and contemporary roles for women, the traditional roles for women are favored in a military setting and the contemporary roles are favored in a social setting.

## CHAPTER V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### PART III. RECOMMENDATIONS

##### Implications For Further Research

Only a limited number of practical implications should be drawn from these data. First, there is evidently a need to reassure mid-career level officers that equality of treatment will be official policy unless specifically exempted by the Army's newly-enunciated combat exclusion policy regarding specific combat specialties. This policy allows managerial policy discretion and flexibility in critical tasks such as planning and programming for the increased use of women and adjusting policies based on results of studies and tests. Although other positions, not specifically addressed by the policy, may be adjusted by the Army staff later, officers of this class were aware that there has been no change in the programmed numbers for women accessions as a result of the new policy. The announced personnel management guidance and instructions on the Army Authorization Documents applies to all units of the active Army, Army National Guard and United States Army Reserve. It has been directed that a deliberate movement

be made to place qualified women in newly open units and specialties.

The second implication that may be drawn is that the officers need to be better informed about the capabilities of women in the modern volunteer Army through an information campaign.

Third, to reduce stereotypical views, the sample should be informed of the very high qualifications required of the enlisted and officer woman soldier.

#### Recommendations For Further Action And Research

The implications discussed above provide a logical starting point for further action and research.

The following provides ten specific recommendations for further action and research.

1. This study pointed out that there is a disparity between egalitarian social attitudes toward women in socially-sanctioned civilian employment; however, the opposite was true with regard to attitudes toward women in military combat units and leadership roles.

2. Therefore, if further attitude studies are conducted of middle-career level officer ranks, the results compared to this research would measure any shift from the traditional mind-set to a more contemporary mind-set. The comparison would provide pinpointed areas for resolution.

3. Perhaps the most significant aspects of attitude and attitude change cannot be disclosed by the results of this type of questionnaire. The relationship of mind-sets to social and psychological growth or maturity would, be a fertile though difficult, area for investigation.

4. Comparative attitude surveys with other management levels (i.e., senior, and first line supervisors), might prove fruitful.

5. A study of how mind-sets of military managers compare to civilian or civil service managers with regard to expanded roles for women managers might prove of educational value, in inducing behavioral change through attitude study.

6. A field to be explored may be how upward mobility within nontraditional positions relates to professional credibility.

7. A study similar to that conducted by the writer but extended over a longer period of time with various populations might add to the facts obtained.

8. The writer used only one instrument to measure attitudes of this population. It is suggested that a more thorough pilot testing program be conducted to measure the many concepts included in the instrument.

9. Items most frequently marked "undecided" constructed by the writer could be screened to determine whether concepts involved were too ambiguous, or if they could be refined to accommodate more "specificity."

10. Information programs, seminars, lectures and group discussions, which were recommended by the West Point Report of cadets in 1975, are currently needed since the greater the exposure the more attitude change is expected due to a equal-status in shared professional experiences.

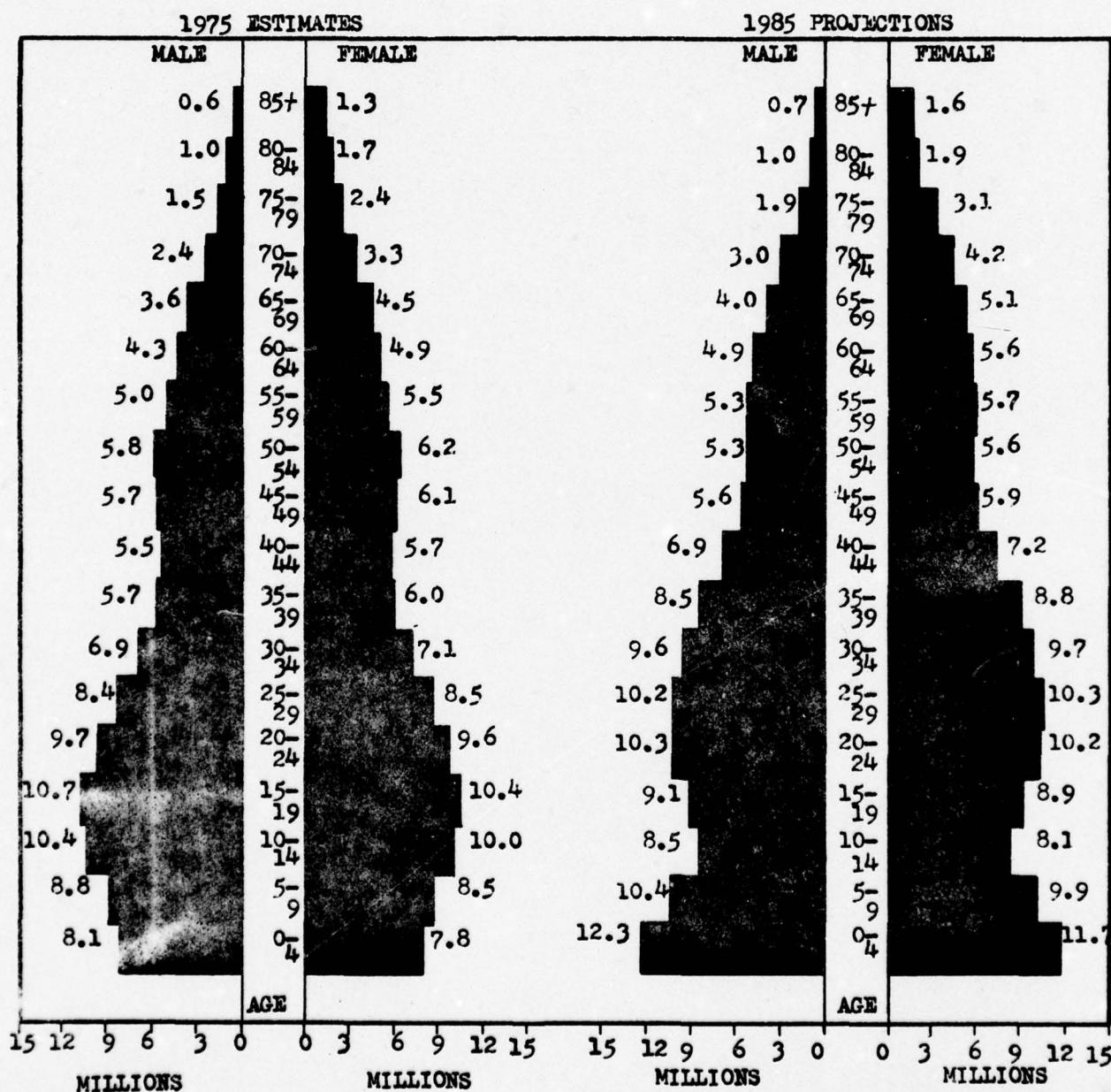
A similar or follow up study should be conducted with respect to attitudes toward women in combat, in order to assess the need for further attitude changes to be implemented through Army Affirmative Action Plans.

APPENDIX A

POPULATION ESTIMATE AND PROJECTIONS

POPULATION ESTIMATES & PROJECTIONS  
Population in 1965 Reflects Overall Aging

The relatively small numbers of people born during the Depression of the 1930's will be in the 45 to 54 age group by 1985. By that year, too, the members of the "baby boom" born in the late 1940's and 1950's will have grown into the young adult classifications. The population under age 10 dropped sharply between 1965 and 1975, reflecting the sharp drop in annual births. However, the structure of the 1985 population pyramid under age 10 will depend on future fertility trends. The accompanying 1985 population pyramid shows the projected range of the under 10 population using the Census Bureau's projection series.



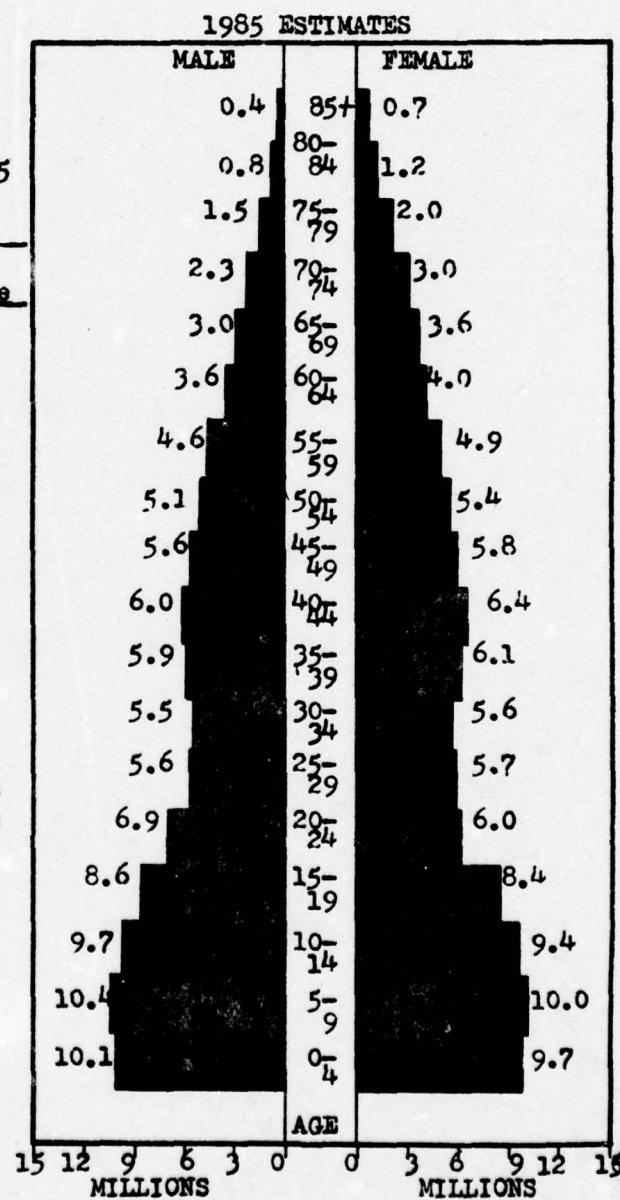
## POPULATION ESTIMATES & PROJECTIONS

### Population Pyramids Reveal Major Changes in Age Structure

Population pyramids for different years show major changes in the age composition of the population. Through the middle adult ages, the structure is determined largely by previous trends in fertility. Beyond middle age, mortality patterns become an increasingly important determinant. There are more males than females in the pre-adult age groups because there are about 5 percent more male births than female births. However, mortality is higher among males than females throughout life, and in the older adult age groups there are more females than males.

#### AGE AND SEX COMPOSITION OF THE POPULATION—1965 AND 1975 ESTIMATES, 1985 PROJECTION

POPULATION ESTI- MATES & PROJE- CTIONS	1965	1975	1975	1985
MALE & FEMALE BY AGE, TOTAL	<u>Percent Change</u>			
75+	30.0	20.4		
70-74	8.2	25.2		
65-69	23.6	13.1		
60-64	22.1	13.4		
55-59	10.9	4.3		
50-54	14.6	9.7		
45-49	3.6	2.5		
40-44	9.9	25.8		
35-39	3.3	48.3		
30-34	25.8	37.7		
25-29	49.4	21.4		
20-24	40.0	6.5		
15-19	23.5	14.4		
10-14	7.2	18.7		
5-9	14.9	1.0*		
0-4	19.8	24.5*		

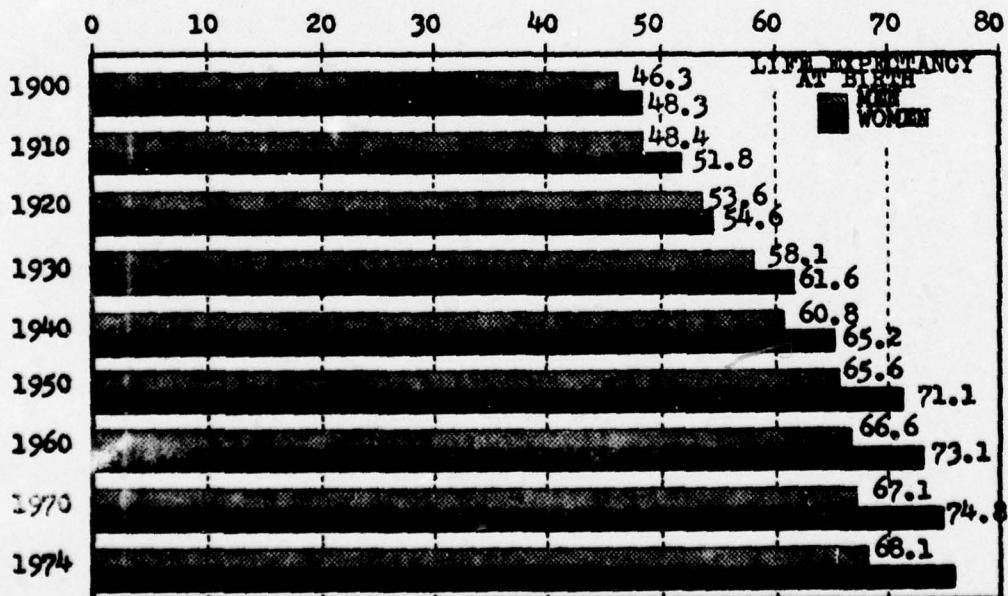
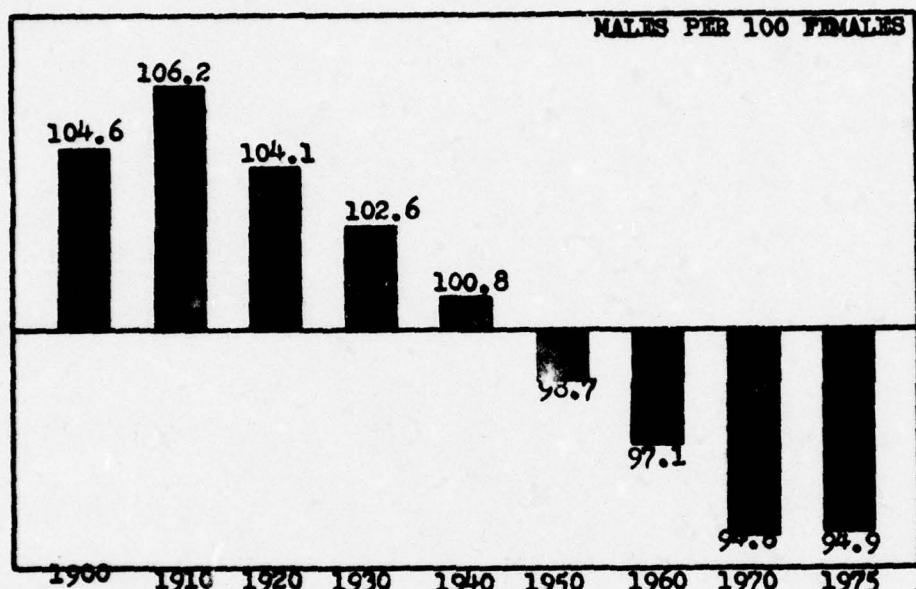


\* Series II

### CHARACTERISTICS OF WOMEN

#### Population Composition and Life Expectancy

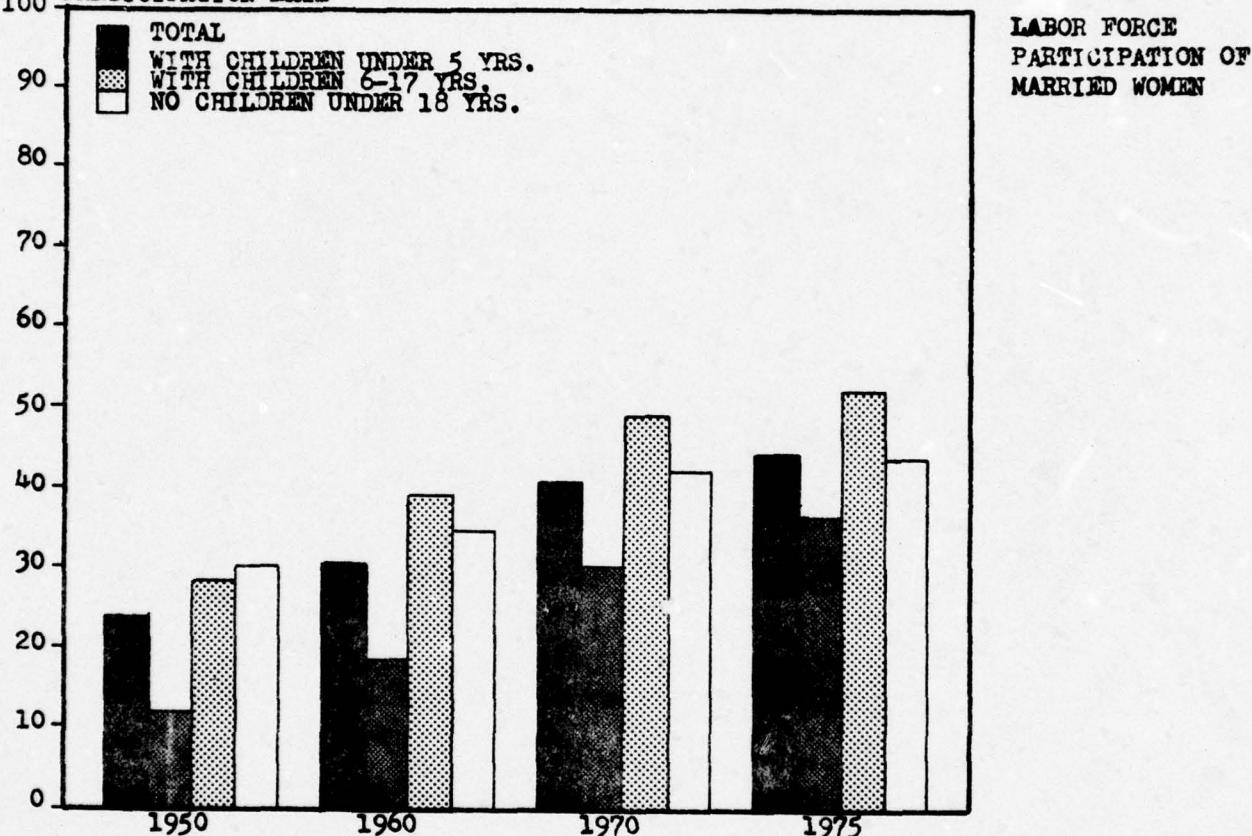
Until the 1950 decennial census, men had always outnumbered women in the United States. In that year, however, a trend first noted in the 1920 census resulted in a smaller number of males than females in the U.S. population (98.7 males per 100 females). That trend is continuing. Since the turn of the century, life expectancy at birth has improved more for women than for men. Women born in 1900 could expect to live for 48.3 years compared with men's life expectancy of 46.3 years, a difference of only 2 years. Females born in 1974, however, can expect to live for 75.8 years compared with 68.1 years for males, a difference of almost 8 years. One of the major reasons for improved longevity of women has been the dramatic reduction in the maternal mortality rate. Deaths related to pregnancy and childbirth have dropped from 690 deaths per 100,000 live births in the early 1920's to 15 deaths per 100,000 live births in 1973.



CHARACTERISTICS OF WOMEN  
Labor Force Participation

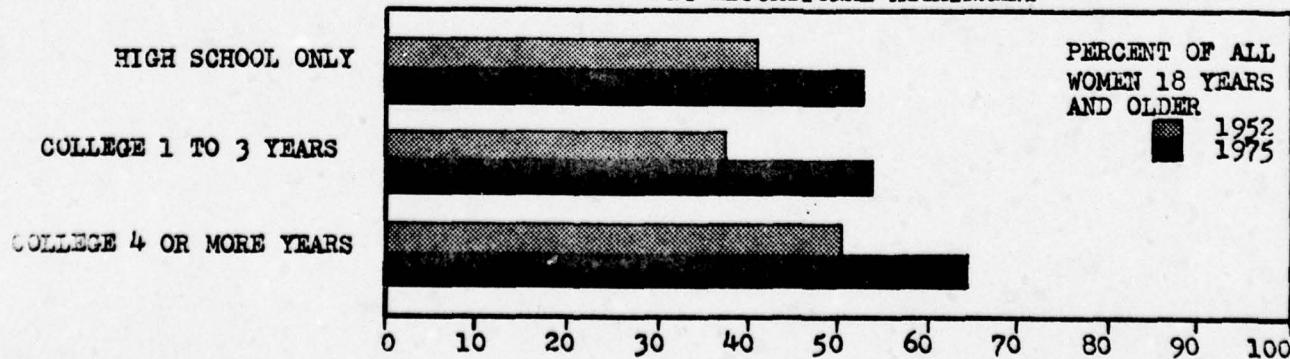
The dramatic increase in women's labor force participation during recent years is a clear indication of the American woman's changing social and economic roles. The percentage of working wives (husband present) nearly doubled between 1950 and 1975. During the same period, labor force participation among mothers of preschool children rose more than 200 percent. By 1975, more than half of all married women (husband present) with school age children held jobs outside the home—an increase of 84.8 percent over 1950. Increasing numbers of women are translating educational attainments into earnings potential in the labor force. Largest gains in the last quarter-century have been achieved by women with 1 to 3 years of college. Labor force participation for that group increased nearly 43 percent since 1952.

100 PARTICIPATION RATE



LABOR FORCE  
PARTICIPATION OF  
MARRIED WOMEN

LABOR FORCE PARTICIPATION RATES FOR WOMEN  
BY EDUCATIONAL ATTAINMENT



APPENDIX B  
DEMOGRAPHICS OF THE POPULATION SAMPLED

The Regular Command and General Staff College Class of 1977-1978 was composed of 996 officers, including 93 Allied, 15 women, 53 Sister Service, and 4 Reserve Component officers. The general demographics of the Class are provided below. The majority of the US students were in the grade of major (862); had 11 years, 10 months, active commissioned service and were between 29.5 and 47.8 years of age. Officers in the Regular Army (850 out of 996) comprised 85 percent of the US students. Seventy-two percent of the Class possessed master's and higher degrees of civilian education; 26 percent had baccalaureate degrees. Nearly all students (96 percent) had been in combat and 85 percent had company/battery level commands.

Because of the wide variety of assignments following graduation, no pattern can be inferred; however, in recent years, about 30 to 40 student remained at CGSC, 90 went on to civilian schools, and about 81 were assigned to Department of the Army and other high staffs. Of the 183 receiving overseas orders, 84 were posted to Europe; 99 were assigned to the Pacific and other overseas commands.

APPENDIX C

THE INSTRUMENT

S: 19 December 1977

Return to: Spencer Approved for Distribution to: CL 78  
Section 22 \_\_\_\_\_ (250 STU)  
(Class Director)

Dear Classmate,

I am writing an MMAS thesis on women as combatants in the U.S. Army, and I need your assistance, which will remain anonymous. Please cooperate with me by devoting about twenty minutes of your time to completing the attached questionnaire.

When you have completed your response, place your IBM Answer Sheet in the envelope provided and drop it into the internal distribution box in your section.

Your cooperation will be greatly appreciated.

Sincerely,

1 Incl  
as

D. E. SPENCER  
MAJ, SC  
Section 22

INSTRUCTIONS TO RESPONDENTS

1. Use only No. 2 pencil in recording answers on Answer Sheet.
2. Do NOT place your name or social security number anywhere on your response sheet.
3. Select only one response to each question, unless otherwise indicated.
4. Clearly indicate your final choice, if you should change your response.
5. When you have completed your response sheet, place the answer sheet in the envelope provided and drop in internal distribution box in your section.
6. The response sheet must not include any identifying data.
7. Darken: a. (Strongly Agree) b. (Agree)  
c. (Undecided) d. (Disagree) e. (Strongly Disagree)  
(Items 11 through 57.)

General Instructions: Darken only one answer on the IBM Sheet for each item.

1. The source of my commission was:

- a. USMA      c. OCS      e. professional
- b. ROTC      d. direct commission      appointment

2. My rank is:

- a. captain      b. major      c. lieutenant colonel

3. My age group is:

- a. 25-30      b. 31-35      c. 36-40      d. 41-45
- e. 46-50

4. My major military experience is:

- a. combat arms      c. combat service support
- b. combat support      d. professional

5. My level of education is:

- a. under 2 years college      d. graduate degree
- b. undergraduate w/o degree      e. post-graduage
- c. baccalaureate degree      degree

6. My marital status is:

- a. single      b. married      c. divorced

7. I have worked in the same ORG/unit with a military woman (or women).

- a. Yes      b. No

Instructions: If Item 7 is answered No, move to Item 9.

8. The length of time that has passed since I last served with a military woman (or women) is:

- a. 0-2 yrs      b. 3-5 yrs      c. 6-8 yrs
- d. 9 or more yrs

9. I have been supervised by a military woman.

a. Yes      b. No

10. Have you served in combat under fire?

a. Yes      b. No

11. If women were assigned to a combat arms unit, the effect on readiness would be positive.

a. SA      b. A      c. U      d. D      e. SD

12. I would be proud if women were assigned as leaders in my combat unit.

a. SA      b. A      c. U      d. D      e. SD

13. No American woman, even if physically qualified, should be assigned to a maneuver unit during wartime.

a. SA      b. A      c. U      d. D      e. SD

14. During the past year, my attitude toward women in the military has become favorable.

a. SA      b. A      c. U      d. D      e. SD

15. If a woman has the same ability as a man, her chances of becoming a commander in a maneuver unit are better than his.

a. SA      b. A      c. U      d. D      e. SD

16. I would welcome serving under the command of a qualified woman in a maneuver unit.

a. SA      b. A      c. U      d. D      e. SD

17. Women should be trained for all branches including combat, e.g., IN & AR.

a. SA      b. A      c. U      d. D      e. SD

18. During the past year, the attitude of my peers toward women in maneuver units has been favorable.

a. SA    b. A    c. U    d. D    e. SD

19. Women should take increasing responsibility for leadership in solving intellectual and social problems of the day.

a. SA    b. A    c. U    d. D    e. SD

20. It is more acceptable for men to be morally indiscrete than it is for women.

a. SA    b. A    c. U    d. D    e. SD

21. A strict merit system in job appointment and promotion should be equitably applied without regard to sex.

a. SA    b. A    c. U    d. D    e. SD

22. Women should assume an equal place in business and all professions along with men.

a. SA    b. A    c. U    d. D    e. SD

23. Women should have the same freedom of action as men.

a. SA    b. A    c. U    d. D    e. SD

24. The father should have greater responsibility for discipline than the mother.

a. SA    b. A    c. U    d. D    e. SD

25. In the disposal of family property or income, the law should treat the husband and the wife equally.

a. SA    b. A    c. U    d. D    e. SD

26. Women are as capable of contributing to executive decisions as men.

a. SA    b. A    c. U    d. D    e. SD

27. There are jobs in which men should be given assignment and promotion preference.

a. SA    b. A    c. U    d. D    e. SD

28. The modern woman is as entitled as the modern man to freedom from role restriction and control.

a. SA    b. A    c. U    d. D    e. SD

29. Under ordinary circumstances, women belong in the home, caring for children and carrying out domestic duties; whereas men should be responsible for the financial support of the family.

a. SA    b. A    c. U    d. D    e. SD

30. Ideally, relationships between men and women are equal and husbands and wives should share domestic, child rearing, and financial responsibilities.

a. SA    b. A    c. U    d. D    e. SD

31. Women are generally logical when it comes to decisionmaking.

a. SA    b. A    c. U    d. D    e. SD

32. Women should not expect to have all of the privileges and responsibilities that men have.

a. SA    b. A    c. U    d. D    e. SD

33. The U.S. Army should remain a masculine "stronghold."

a. SA    b. A    c. U    d. D    e. SD

34. Women commanders will not generate respect among their subordinates.

a. SA    b. A    c. U    d. D    e. SD

35. In my specific job, I would prefer my boss to be a man.

a. SA      b. A      c. U      d. D      e. SD

36. I would like to work alongside a woman if we were doing the same job.

a. SA      b. A      c. U      d. D      e. SD

37. Men are badly affected when they fight in combat.

a. SA      b. A      c. U      d. D      e. SD

38. Compared to men, women are less capable of violence.

a. SA      b. A      c. U      d. D      e. SD

39. If women were assigned to maneuver units, the U.S. Army would become more effective.

a. SA      b. A      c. U      d. D      e. SD

40. The catalyst for expanded roles for military women has been: Equal Rights Amendment ratification controversy.

a. SA      b. A      c. U      d. D      e. SD

41. The catalyst for expanded roles for military women has been: Recent Supreme Court decisions.

a. SA      b. A      c. U      d. D      e. SD

42. The catalyst for expanded roles for military women has been: organized women's groups.

a. SA      b. A      c. U      d. D      e. SD

The following jobs are more appropriate for military women than for military men.

43. Cook

a. SA      b. A      c. U      d. D      e. SD

44. Diesel mechanic.

a. SA    b. A    c. U    d. D    e. SD

45. Rifle-carrying infantry soldier.

a. SA    b. A    c. U    d. D    e. SD

46. Social worker.

a. SA    b. A    c. U    d. D    e. SD

47. Tank crewman.

a. SA    b. A    c. U    d. D    e. SD

48. Expanded roles of women in American society should be matched by expanded roles for women in the U.S. Army.

a. SA    b. A    c. U    d. D    e. SD

49. The roles of women in the U.S. Army were relatively restricted until the early 1970s.

a. SA    b. A    c. U    d. D    e. SD

50. Women should be permitted to perform combat duty.

a. SA    b. A    c. U    d. D    e. SD

51. Men naturally assume that women do not want to perform combat duty.

a. SA    b. A    c. U    d. D    e. SD

52. Since women are the bearers of children, they should not be in combat.

a. SA    b. A    c. U    d. D    e. SD

53. Public opinion would run strongly against deploying women as combatants.

a. SA    b. A    c. U    d. D    e. SD

54. Military readiness is a critical and uncompromisable element that should not be experimented with by deploying women as combatants.

a. SA      b. A      c. U      d. D      e. SD

55. Physical strength is critical to performing combat arms missions.

a. SA      b. A      c. U      d. D      e. SD

56. Maneuver units would be forced to relax training standards to accommodate women soldiers.

a. SA      b. A      c. U      d. D      e. SD

57. The increase in numbers of women in the U.S. Army requires specialized skills for which many unit leaders are not trained.

a. SA      b. A      c. U      d. D      e. SD

Instructions: Use the space below and on the reverse side of the last page to record your personal comments about this questionnaire if you want to share them. Do not reveal your identity.

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SAMPLE COMMENTS REPRESENTING THE  
TRADITIONALISTS' MIND-SET

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"Women have played a traditional role in the family unit since man first came down from the trees, some three million years ago. Women are instinctively programmed to provide a home for the family and rear children. The men have traditionally hunted in groups to provide for the family unit. Vestiges still remain (just like the appendix) in the form of the weekly poker game, contact sports, or bowling night--where men get together. Physically, women are geared for bearing children. Their pelvic girdle is wide to provide room for the fetus; this inhibits running. Similarly, women lack upper body strength. I'm all for women's rights, etc.; but no environmental condition is going to change instinct and physical differences. Women can and should be top executives. They have shown they can manage, supervise and lead--but I'm vehemently opposed to women in combat units--not just because they are not physically and emotionally geared for it, but because of hygienic and fraternization problems, as well as what could happen to the men. I can just see needless deaths brought about because of an attempted rescue of a wounded woman. You see, men are programmed to protect women."

\* \* \* \* \*

"I agree that women can make a contribution to the Armed Forces. But, not as members of the Combat Arms. The American tradition and heritage has implanted in the American male, a sense or need to protect the female. Unless this can be changed, the presence of American women as members of a combat unit would have an adverse effect on the male soldier."

\* \* \* \* \*

"Women have no place in combat units. Do whatever else you want with them but keep them out of maneuver units. If you want a unisex society, then let them go to war with men. Let's face it, women want equal opportunities while retaining their femininity--this results in a paradox."

\* \* \* \* \*

"My indecision on women in combat (by my definition, Infantry) or maneuver units is based on physical strength alone. While it is true that there are women who have as much and more physical ability and stamina as men, as a general rule, they do not. Until as a whole population they have it, they should not be in Infantry units. Infantry combat is physically brutal. They (the average woman today) could not take it. In any event,

absolutely no 'objective' standards should be relaxed to allow women in combat units. Physical and mental toughness is required. Women definitely have the mental part, but not the physical."

\* \* \* \* \*

"Women should remain in the home if they have children."

"Women should not be in combat; they are physically inferior. Women could perform duties as company clerk, supply specialists, i.e., noncombat duties in combat units, but not during wartime."

"The questions were obviously slanted, and used to provide, through thinly veiled variations, women's liberation themes. It was obvious that the author of this questionnaire had an 'axe to grind'."

"I don't believe we should lower our standards; but, if certain women want to perform in the combat arms and are qualified, they should be allowed to do so."

\* \* \* \* \*

"Standards should be set for the combat force (relative to its mission) rather than to accommodate the ease of resource acquisition (men, women, or a mix of the sexes). The members of any element (combat, combat support, or combat service support) should be able

to perform their tasks in the worse case environment, i.e., full scale conflict/warfare."

\* \* \* \* \*

"Given the background of the Army's senior and middle-grade leaders/managers, there would be a reluctance on the part of these individuals to demand sustained maximum effort from female service members vice male service members, primarily in maneuver elements."

\* \* \* \* \*

"The presence of women in a unit causes many problems concerning guard duty, fatigue details, and duty requiring physical strength and stress. Generally, the men end up doing the work because the women are incapable of doing many field skills. What happens when an infantry unit has to send three man long-range reconnaissance patrols to the field for several days at a time? Can the females' physical security be guaranteed? If you decide not to send the women, then the remaining men work harder and take more risks. In combat, serious problems will develop when females become the victims of continuous sexual assaults by the fellow male soldiers. Like it or not, it will happen and a combat commander does not have time to mess with those kinds of problems."

\* \* \* \* \*

"Women are a personnel resource that should be used to maximum advantage. I support all of their objections pertaining to equal rights with the exception of assigning them to the combat arms."

\* \* \* \* \*

"My responses probably exhibit a pre-victorian attitude toward women and for that attitude I can probably be considered 'behind the times' or even 'out of touch with reality'. But quite honestly, I don't believe women should be in combat arms or even in the tactical side of the combat support arms, i.e., combat C-E. No heartburn with fixed C-E or C-E engineering, although I would prefer not working for one.

\* \* \* \* \*

"I do not believe women should serve in positions, jobs or areas which could be considered a combat area. Even in rear areas where guards are needed they become a burden, i.e., an AG Company or Signal Company with a requirement to provide a number of guards have to rely on the males more so because of current policies. If women were allowed to do these type duties, it would decrease the problem. In maneuver units, the majority of the men can handle the physical aspects of the job; women could not. Another problem I've noted on

readiness exercises is that the men tend to help the female more than they would another male. This decreases his overall capability because the female is contributing less (whether she wants to or not)."

\* \* \* \* \*

"In general, I believe women should be allowed to perform any job they are physically able to handle. However, I don't believe women should hold combat command positions. Such a position is probably well within their physical and intellectual capabilities but would cause immeasurable problems because such a thing is just not done anywhere in the world."

\* \* \* \* \*

"It is obvious that there are physical distinctions between men and women. The purpose should also be obvious. They are the "weaker" sex, and it is absurd to give consideration for their assignment to maneuver units. Men may act more like women, and women more like men, but the brilliant creative designs and purposes by a sovereign God remain the best solution to man's so-called progressive ideas."

\* \* \* \* \*

"Women become pregnant, thus unit readiness and effectiveness is lowered. All units today with female

soldiers experience a high pregnancy rate. All units today with female soldiers experience a high level of 'socializing and fraternization'. This is unmilitary and leads to other problems. Yes, women can do many jobs as well or better than men. But the Army is no place for a 'lady'. Women create many more problems than we are prepared to cope with in the Army. For the sake of combat readiness--let's keep them (females) 'restricted' to specific MOS's, i.e., nursing, finance, cooks, clerical jobs."

\* \* \* \* \*

"My feelings about women in combat are cultural and emotional and I would do all I could to keep women out of combat. However, in all other jobs, in all other occupations, I feel equally as strong that women should be in equally competitive positions with men. . . . and paid according to the job. Standards set for the tasks to be performed, then, if you meet the standard, you get the job. Unfortunately, we (the American male) have not held these standards against other men and we now find it difficult to enforce them. Such is the case which may answer to question 56. . . . maneuver units would eventually relax their training standards to accommodate women who cannot keep up

physically rather than throwing the women out of the program because we have kept men who could no longer keep up physically because of their previously demonstrated ability to do so. Once women discovered this, the training standard would recede to a lower point. It, obviously, does not have to work that way, but in our misguided attempts to prove that women can do certain tasks, we alter the requirements sufficiently to prove our point. I am not trying to excuse my cultural bias. I was raised in a male dominated society and I refuse to feel guilty about it. If women want to compete with men, then lets all play by the same rules. . . . but let's not try to 'correct' a cultural imbalance overnight."

\* \* \* \* \*

"Prior to CGSC, I spent three years in a maneuver battalion; I was a principal staff officer in a tactical division headquarters. Women were involved in every aspect of our operation except in the basic, hand combat arms. And they outperformed their male counterparts. Give me female soldiers for radio operators, drivers, shift workers in the TOC duties any time. I'm not so sure about maneuver units. In my experience the gals don't want to be in the maneuver units."

\* \* \* \* \*

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SAMPLE COMMENTS REPRESENTING THE  
CONTEMPORARY MIND-SET

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"We cannot statistically judge women as a group when evaluating their capabilities for combat roles. There are quantifiable differences in statistical comparison of physical strength between men and women, but this does not mean that a large physical woman is weaker than a small man. Job requirements based on skill, intelligence, and physical demands must be determined so that individuals, (male or female), can be evaluated against those requirements. If they qualify--they get the job!"

\* \* \* \* \*

"There should be no constraints on utilization of female service members in forward areas (forward of brigade rear boundaries). Such restrictions place an unwarranted constraint on commanders of combat support and combat service support units."

\* \* \* \* \*

"Many questions need more qualifications. I do not care if a man or woman does the job so long as they are qualified (physically, mentally, intellectually, etc.). There are men who can pass or fail pilot

training and there are women who can pass or fail pilot training. Those that pass should fly--those that fail should not; male or female. There are men who can handle all requirements of heavy truck driving and there are men who cannot. The same applies to women. There are men who can perform as executives in business and those that cannot. The same applies to women. Many other considerations must be applied when comparing men to women--background, experience, schooling, age, values, exposure, potential, etc. As you may note, 'I like women!'"

\* \* \* \* \*

"If the Army is in need of intelligent, well-trained soldiers, why ignore half the population? There are very few jobs requiring strength beyond that of a trained female soldier. Once young girls receive the proper encouragement towards physical exertion, they will grow into strong, healthy young women, perfectly capable of handling almost any job the Army can give them. Fears about women in combat are unjustified. A woman who fears combat will not enter a combat branch. Women are capable of all phases of true combat. It is true that psychological factors will

pose a problem; but this, as all other problems, will gradually be solved by the same element that saved women's suffrage and other issues--time!"

\* \* \* \* \*

"There are jobs at brigade level and even at battalion level which can be accomplished by females, if physically qualified, i.e., wireman, supply clerk, communications officer, intelligence officer, S-4, which do not require closing with and destroying the enemy."

\* \* \* \* \*

"I am neither for or against women in the Army to include maneuver units. I am concerned about performance, not sex, color, creed, etc. Some women would make great combatants while many men do not and vice versa. Your questionnaire does not address requirements for separate facilities (both in combat and in garrison). I think perhaps it is a factor which should not be ignored unless we plan on sharing in mixed groups latrine and shower facilities."

\* \* \* \* \*

"This questionnaire forced me to respond 'undecided' or 'disagree' when I would have preferred to qualify the response. The questionnaire did not permit

me to express several opinions. Women could serve better in some combat jobs than others. Most jobs don't require physical strength greater than women normally have, though some do. In the majority of jobs, women could serve as well as men--the only affect on readiness would be that the personnel strength would be higher. As for combat leadership roles, women would probably have problems getting the men to accept them. However, leadership roles would be required for them, if any women had any combat roles. Conversely, I believe there are some jobs that require men, e.g., prison guard in a men's prison such as the U.S. Disciplinary Barracks at Fort Leavenworth, Kansas."

\* \* \* \* \*

APPENDIX D  
RESULTS OF ATTITUDE QUESTIONNAIRES

SCORING BASIS FOR CREATED VARIABLE SUMS  
AND ATTITUDE SCALE

WEIGHTS

QUESTIONS WHICH WERE ASSIGNED POSITIVE WEIGHTS ARE:

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17,  
18, 19, 20, 21, 22, 23, 25, 26, 28, 30, 31, 36, 39,  
40, 41, 42, 44, 45, 47, 48, 49, 50

SA=5        A=4        U=3        D=2        SD=1

NEGATIVE WEIGHTS WERE ASSIGNED TO QUESTIONS:

13, 20, 24, 27, 29, 32, 33, 34, 35, 37, 38, 43, 46,  
51, 52, 53, 54, 55, 56, 57.

SA=1        A=2        U=3        D=4        SD=5

#### INSTRUCTIONS TO RESPONDENTS

1. Use only No. 2 pencil in recording answers on Answer Sheet.
2. Do NOT place your name or social security number anywhere on your response sheet.
3. Select only one response to each question, unless otherwise indicated.
4. Clearly indicate your final choice, if you should change your response.
5. When you have completed your response sheet, place the answer sheet in the envelope provided and drop in internal distribution box in your section.
6. The response sheet must not include any identifying data.
7. Darken: a. (Strongly Agree) b. (Agree)  
c. (Undecided) d. (Disagree) e. (Strongly Disagree)  
(Items 11 through 57).

General Instructions: Darken only one answer on the IBM Sheet for each item.

1. The source of my commission was:

- a. USMA (21, 15.0%)
- b. ROTC (72, 54.5%)
- c. OCS (29, 22%)
- d. direct commission (9, 6.8%)
- e. professional appointment (1, .8%)

2. My rank is:

- a. Captain (2, 1.5%)
- b. Major (125, 94.7%)
- c. Lieutenant Colonel (5, 3.8%)

3. My age group is:

- a. 25-30 (0)
- b. 31-35 (86, 65.2%)
- c. 36-40 (42, 31.8%)
- d. 41-45 (4, 3%)
- e. 46-50 (0)

4. My major military experience is:

- a. combat arms (60, 45.5%)
- b. combat support (34, 25.8%)
- c. combat service support (34, 25.8%)
- d. professional (4, 3%)

5. My level of education is:

- a. under 2 years college (0)
- b. undergraduate w/o degree (2, 1.5%)
- c. Baccalaureate degree (34, 25.8%)
- d. graduate degree (87, 65.9%)
- e. post-graduate degree (9, 6.8%)

6. My marital status is:

- a. single (5, 3.8%)
- b. married (122, 92.4%)
- c. divorced (5, 3.8%)

7. I have worked in the same ORG/unit with a military woman (or women).

- a. Yes (97, 73.5%)
- b. No (35, 26.5%)

Instructions: If Item 7 is answered No, move to Item 9.

8. The length of time that has passed since I last served with a military woman (or women) is:

- a. 0-2 yr (81, 78.6%)
- b. 3-5 yr (20, 19.4%)
- c. 6-8 yr (0)
- d. 9 or more yr (2, 1.9%)

9. I have been supervised by a military woman.

- a. Yes (7, 5.3%)
- b. No (23, 17.4%)

10. Have you served in combat under fire?

- a. Yes (109, 82.6%)
- b. No (23, 17.4%)

11. If women were assigned to a combat arms unit, the effect on readiness would be positive.

a. SA (2, 1.5%)	d. D (48, 36.4%)
b. A (14, 10.6%)	e. SD (29, 22%)
c. U (39, 29.5%)	

12. I would be proud if women were assigned as leaders in my combat unit.

a. SA (1, .8%)	d. D (39, 29.8%)
b. A (9, 6.9%)	e. SD (40, 30.5%)
c. U (42, 32.1%)	/

13. No American woman, even if physically qualified, should be assigned to a maneuver unit during wartime.

a. SA (35, 26.5%)	d. D (37, 28%)
b. A (29, 22%)	e. SD (12, 9.1%)
c. U (19, 14.4%)	

14. During the past year, my attitude toward women in the military has become favorable.

a. SA (11, 8.4%)	d. D (25, 19.1%)
b. A (54, 41.2%)	e. SD (13, 9.9%)
c. U (28, 21.4%)	(Missing=1 or .8%)

15. If a woman has the same ability as a man, her chances of becoming a commander in a maneuver unit are better than his.

a. SA (1, .8%)	d. D (58, 43.9%)
b. A (8, 6.1%)	e. SD (47, 35.6%)
c. U (18, 13.6%)	

16. I would welcome serving under the command of a qualified woman in a maneuver unit.

a. SA (3, 2.3%)	d. D (41, 31.1%)
b. A (19, 14.4%)	e. SD (44, 33.3%)
c. U (25, 18.9%)	

17. Women should be trained for all branches including combat, e.g., IN & AR.

a. SA (6, 4.5%)	d. D (39, 29.5%)
b. A (28, 21.2%)	e. SD (49, 37.1%)
c. U (10, 7.6%)	

18. During the past year, the attitude of my peers toward women in maneuver units has been favorable.

a. SA (0)	d. D (58, 43.9%)
b. A (13, 9.8%)	e. SD (25, 18.9%)
c. U (36, 27.3%)	

19. Women should take increasing responsibility for leadership in solving intellectual and social problems of the day.

a. SA (27, 20.5%)	d. D (7, 5.3%)
b. A (76, 57.6%)	e. SD (3, 2.3%)
c. U (19, 14.4%)	

20. It is more acceptable for men to be morally indiscrete than it is for a woman.

a. SA (9, 6.8%)	d. D (49, 37.1%)
b. A (28, 21.2%)	e. SD (29, 22%)
c. U (17, 12.9%)	

21. A strict merit system in job appointment and promotion should be equitably applied without regard to sex.

a. SA (40, 30.3%)	d. D (19, 14.4%)
b. A (62, 47%)	e. SD (4, 3%)
c. U (7, 5.3%)	

22. Women should assume an equal place in business and all professions along with men.

a. SA (35, 26.5%)	d. D (22, 16.7%)
b. A (54, 40.9%)	e. SD (5, 3.8%)
c. U (5, 3.8%)	

23. Women should have the same freedom of action as men.

a. SA (45, 34.1%)	d. D (8, 6.1%)
b. A (74, 56.1%)	e. SD (0)
c. U (5, 3.8%)	

24. The father should have greater responsibility for discipline than the mother.

a. SA (5, 3.8%)	d. D (64, 48.9%)
b. A (26, 19.8%)	e. SD (26, 19.8%)
c. U (10, 7.6%)	(Missing=1 or .8%)

25. In the disposal of family property or income, the law should treat the husband and the wife equally.

a. SA (51, 38.6%)	d. D (7, 5.3%)
b. A (59, 44.7%)	e. SD (3, 2.3%)
c. U (12, 9.1%)	

26. Women are as capable of contributing to executive decisions as men.

a. SA (48, 36.4%)	d. D (5, 3.8%)
b. A (71, 53.8%)	e. SD (3, 2.3%)
c. U (5, 3.8%)	

27. There are jobs in which men should be given assignment and promotion preference.

a. SA (15, 11.4%)	d. D (24, 18.2%)
b. A (61, 46.2%)	e. SD (10, 7.6%)
c. U (22, 16.7%)	

28. The modern woman is as entitled as the modern man to freedom from role restriction and control.

a. SA (28, 21.2%)	d. D (10, 7.6%)
b. A (78, 59.1%)	e. SD (3, 2.3%)
c. U (13, 9.8%)	

29. Under ordinary circumstances, women belong in the home, caring for children and carrying out domestic duties; whereas men should be responsible for the financial support of the family.

a. SA (11, 8.3%)	d. D (47, 35.6%)
b. A (43, 32.6%)	e. SD (14, 10.6%)
c. U (17, 12.9%)	

30. Ideally, relationships between men and women are equal and husbands and wives should share domestic, child rearing, and financial responsibilities.

a. SA (27, 20.5%)	d. D (28, 21.2%)
b. A (60, 45.5%)	e. SD (6, 4.5%)
c. U (11, 8.3%)	

31. Women are generally logical when it comes to decisionmaking.

a. SA (15, 11.4%)	d. D (13, 9.8%)
b. A (74, 56.1%)	e. SD (3, 2.3%)
c. U (27, 20.5%)	

32. Women should not expect to have all the privileges and responsibilities that men have.

a. SA (4, 3.3%)	d. D (67, 55.4%)
b. A (13, 10.7%)	e. SD (23, 19%)
c. U (14, 11.6%)	(Missing=11 or 8.3%)

33. The U.S. Army should remain a masculine "stronghold."

a. SA (7, 5.3%)	d. D (56, 42.4%)
b. A (28, 21.2%)	e. SD (19, 14.4%)
c. U (17, 12.9%)	

34. Women commanders will not generate respect among their subordinates.

a. SA (7, 5.3%)	d. D (57, 43.2%)
b. A (19, 14.4%)	e. SD (14, 10.6%)
c. U (35, 26.5%)	

35. In my specific job, I would prefer my boss to be a man.

a. SA (29, 22%)	d. D (18, 13.6%)
b. A (57, 43.2%)	e. SD (6, 4.5%)
c. U (22, 16.7%)	

36. I would like to work alongside a woman if we were doing the same job.

a. SA (9, 6.8%)	d. D (23, 17.4%)
b. A (64, 48.5%)	e. SD (6, 4.5%)
c. U (30, 22.7%)	

37. Men are badly affected when they fight in combat.

a. SA (8, 6.3%)	d. D (30, 23.8%)
b. A (45, 35.7%)	e. SD (3, 2.4%)
c. U (40, 31.7%)	(Missing=6 or 4.5%)

38. Compared to men, women are less capable of violence.

a. SA (7, 5.3%)	d. D (49, 37.1%)
b. A (30, 22.7%)	e. SD (21, 15.9%)
c. U (25, 18.9%)	

39. If women were assigned to maneuver units, the U.S. Army would become more effective.

a. SA (1, .8%)	d. D (46, 34.8%)
b. A (8, 6.1%)	e. SD (38, 28.8%)
c. U (39, 29.5%)	

40. The catalyst for expanded roles for military women has been: Equal Rights Amendment ratification controversy.

a. SA (5, 3.8%)	d. D (40, 30.5%)
b. A (26, 19.8%)	e. SD (19, 14.5%)
c. U (41, 31.3%)	(Missing=1 or .8%)

41. The catalyst for expanded roles for military women has been: Recent Supreme Court decisions.

a. SA (2, 1.5%)	d. D (29, 22%)
b. A (35, 26.5%)	e. SD (13, 9.8%)
c. U (53, 40.2%)	

42. The catalyst for expanded roles for military women has been: Organized women's groups.

a. SA (5, 3.8%)	d. D (35, 26.5%)
b. A (40, 30.3%)	e. SD (8, 6.1%)
c. U (53, 40.2%)	

The following jobs are more appropriate for military women than for military men:

43. Cook

a. SA (1, .8%)	d. D (66, 50%)
b. A (24, 18.2%)	e. SD (13, 9.8%)
c. U (28, 21.2%)	

44. Diesel mechanic

a. SA (0)	d. D (72, 58.4%)
b. A (6, 4.9%)	e. SD (22, 17.9%)
c. U (23, 18.7%)	(Missing=9 or 6.8%)

45. Rifle-carrying infantry soldier

a. SA (2, 1.5%)	d. D (44, 33.3%)
b. A (8, 6.1%)	e. SD (60, 45.5%)
c. U (18, 13.6%)	

46. Social worker

a. SA (6, 4.5%)	d. D (39, 29.5%)
b. A (46, 34.8%)	e. SD (10, 7.6%)
c. U (31, 23.5%)	

47. Tank crewman

a. SA (1, .8%)	d. D (52, 39.7%)
b. A (11, 8.4%)	e. SD (49, 37.4%)
c. U (18, 13.7%)	(Missing=1 or .8%)

48. Expanded roles of women in American society should be matched by expanded roles for women in the U.S. Army.

a. SA (14, 10.6%)	d. E (22, 16.7%)
b. A (69, 52.3%)	e. SD (10, 7.6%)
c. U (17, 12.9%)	

49. The roles of women in the U.S. Army were relatively restricted until the early 1970s.

a. SA (22, 16.7%)	d. D (4, 3%)
b. A (97, 73.5%)	e. SD (5, 3.8%)
c. U (4, 3%)	

50. Women should be permitted to perform combat duty.

a. SA (9, 6.8%)	d. D (34, 25.8%)
b. A (39, 29.5%)	e. SD (35, 26.5%)
c. U (15, 11.4%)	

51. Men naturally assume that women do not want to perform combat duty.

a. SA (11, 8.3%)	d. D (26, 19.7%)
b. A (71, 53.8%)	e. SD (2, 1.5%)
c. U (22, 16.7%)	

52. Since women are the bearers of children, they should not be in combat.

a. SA (10, 7.6%)	d. D (63, 47.7%)
b. A (28, 21.2%)	e. SD (9, 6.8%)
c. U (22, 16.7%)	

53. Public opinion would run strongly against deploying women as combatants.

a. SA (36, 27.3%)	d. D (7, 5.3%)
b. A (77, 58.3%)	e. SD (1, .8%)
c. U (11, 8.3%)	

54. Military readiness is a critical and uncompromisable element that should not be experimented with by deploying women as combatants.

a. SA (30, 22.7%)	d. D (31, 23.5%)
b. A (40, 30.3%)	e. SD (8, 6.1%)
c. U (23, 17.4%)	

55. Physical strength is critical to performing combat arms missions.

a. SA (31, 23.5%)	d. D (17, 12.9%)
b. A (68, 51.5%)	e. SD (6, 4.5%)
c. U (10, 7.6%)	

56. Maneuver units would be forced to relax training standards to accommodate women soldiers.

a. SA (23, 18.1%)	d. D (30, 23.6%)
b. A (36, 28.3%)	e. SD (23, 18.1%)
c. U (15, 11.8%)	(Missing=5 or 3.8%)

57. The increase in numbers of women in the U.S. Army requires specialized skills for which many unit leaders are not trained.

a. SA (14, 10.7%)	d. D (38, 29%)
b. A (49, 37.4%)	e. SD (8, 6.1%)
c. U (22, 16.8%)	(Missing=1 or .8%)

Instructions: Use the space below and on the reverse side of the preceding page to record your personal comments about this questionnaire if you want to share them. Do not reveal your identity.

APPENDIX E  
COMPUTATION OF THE ATTITUDE SCALE SCORES

In order to divide the sample's responses into degrees of intensity of attitude, the following conditions were established.

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TABLE OF SCALABLE RELATIONS

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SCALING CONDITIONS

1F	(ITEM 58 GE 16 AND ITEM 58 LT 37) ITEM 58 = 1 LOW
1F	(ITEM 58 GE 37 AND ITEM 58 LT 58) ITEM 58 = 2 MEDIUM
1F	(ITEM 58 GE 58 AND ITEM 58 LT 80) ITEM 58 = 3 HIGH
1F	(ITEM 59 GE 8 and ITEM 59 LT 18) ITEM 59 = 1 LOW
1F	(ITEM 59 GE 18 AND ITEM 59 LT 29) ITEM 59 = 2 MEDIUM
1F	(ITEM 59 GE 29 AND ITEM 59 LT 40) ITEM 59 = 3 HIGH
1F	(ITEM 60 GE 15 AND ITEM 60 LT 35) ITEM 60 = 1 LOW
1F	(ITEM 60 GE 35 AND ITEM 60 LT 55) ITEM 60 = 2 MEDIUM
1F	(ITEM 60 GE 55 AND ITEM 60 LT 75) ITEM 60 = 3 HIGH
1F	(ITEM 61 GE 5 AND ITEM 61 LT 12) ITEM 61 = 1 LOW
1F	(ITEM 61 GE 12 AND ITEM 61 LT 19) ITEM 61 = 2 MEDIUM
1F	(ITEM 61 GE 19 AND ITEM 61 LT 25) ITEM 61 = 3 HIGH

The determination of whether or not these relationships exist and to what degree was made by abstracting the relation from sets of the sample, or more accurately, from sets of demographic characteristics of the sample.

SELECTED BIBLIOGRAPHY

BOOKS

Adams, J. S. Inequity in Social Exchange. In L. Berkowitz (Ed.), Advances in Experimental Social Psychology. New York: Academic Press, 1965, Vol II.

Agar, Herbert. The Darkest Year: Britain Alone, June 1940 - June 1941. Garden City, N.Y.: Doubleday and Co., 1973.

Avery, Catherine B. (Ed.). Greek Mythology and Legend. New York: Appleton-Century-Crofts, 1972.

Battleheim, B., and J. Janowitz. Dynamics of Prejudice. New York: Harper, 1960.

Binkin, Martin, and Shirley J. Bach. Women and the Military. Washington: Brookings Institution, 1977.

Bishop, Edward. The Battle of Britain. London: George Allen and Unwin, 1960.

Bloom, B., et al. Taxonomy of Educational Objectives. Handbook I: Cognitive Domain. New York: Longmans, 1956.

Buros, O., (Ed.). The Fifth Mental Measurements Yearbook. Highland Park, N.J.: Gryphon Press, 1959.

Campbell, D. T., and R. A. Le Vine. A Ethnocentrism and Intergroup Relations. In R. P. Abelson, E. Aronson, W. J. McGuire, T. M. Newcomb, M. J. Rosenberg, and P. H. Tannenbaum (Eds.). Theories of Cognitive Consistency: A Sourcebook. Chicago: Rand McNally, 1968.

Carne, Daphne. The Eyes of the Few. London: P. R. Macmillan, 1960.

Clayton, Ellen C. Female Warriors. . . London: Tinsley Brothers, 1879.

Cohen, A. R. Some Implications of Self-Esteem for Social Influence. In C. I. Hovland and I. L. Janis (Eds.), Personality and Persuasibility. New Haven: Yale University Press, 1959.

Collier, Basil. The Battle of Britain. New York: Macmillan Co., 1962.

Collins, Larry, and Dominique Lapierre. O Jerusalem! New York: Simon and Schuster, 1972.

Cruickshank, C. G., Elizabeth's Army, 2d ed. London: Oxford University Press, 1966.

Ebel, R. "Obtaining and Reporting Evidence on Content Validity," Educational and Psychological Measurement, XVI, 1956.

Ernhardt, B., and J. Loevinger. Authoritarian Family Ideology: A Measure, Its Correlates, and Its Robustness. Multivariate Behavior Research Monograms, 1969. MBR Monograph No. 69-1.

Evans, Elizabeth. Weathering the Storm: Women of the American Revolution. New York: Charles Scribner's Sons, 1975.

Fanon, Frantz. A Dying Colonialism. New York: Grove Press, 1965.

Festinger, L. A Theory of Cognitive Dissonance. Stanford, CA: Stanford University Press, 1957.

Fishbein, M. Attitude and the Prediction of Behavior. In M. Fishbein (Eds.), Readings in Attitude Theory and Measurement. New York: Wiley, 1967.

Forster, Thomas M. The East German Army. London: Allen and Unwin, 1967.

Gerhardt, James M. The Draft and Public Policy: Issues in Military Manpower Procurement. Columbus: Ohio State University Press, 1971.

Hall, Edward Hagaman. Margaret Corbin, Heroine of the Battle of Fort Washington, 16 November 1776. New York: American Scenic and Historic Preservation Society, 1932.

Hardyck, Curtis D., and Lewis F. Petrinovich. Introduction to Statistics for the Behavioral Sciences. 2d ed. Saunders Books in Psychology. Philadelphia, London, Toronto: W. E. Saunders Co., 1976.

Hazleton, Lesley. Israeli Women. (Simon and Schuster, 1977).

Hillway, Tyrus. Introduction to Research. Boston: Houghton Mifflin, 1956.

Insko, C. A. Theories of Attitude Change. New York: Appleton-Century-Crofts, 1967.

Janowitz, Morris. The New Military in Changing Patterns of Organizations.

\_\_\_\_\_. The Professional Soldier. (Glencoe: The Free Press, 1960).

Katz, D., I. Sarnoff, and C. McClintock. "Ego Defense and Attitude Change," Human Relations, 1956.

Katz, D., and E. Stotland. "A Preliminary Statement to Theory of Attitude Structure and Change." In S. Koch (Ed.), Psychology: A Study of a Science. New York: McGraw-Hill, 1959.

Kerlinger, Fred N. Foundations of Behavioral Research. New York: Holt, Rinehart and Winston, Inc., 1964.

Kish, Leslie. Survey Sampling. New York: John Wiley and Sons, Inc., 1965.

Krathwohl, D. R., B. S. Bloom and B. B. Masia. Taxonomy of Educational Objectives. Handbook II: Affective Domain. New York: David McKay, Inc., 1964.

Laffin, John. Women in Battle. London: Abelard-Schuman, 1967.

Lennon, R. "Assumptions Underlying Use of Content Validity," Educational and Psychological Measurement, XVI (1956).

Lerner, Gerda. The Female Experience: An American Documentary. Indianapolis, Bobbs-Merrill, 1977.

Likert, Rensis. A Technique for the Measurement of Attitudes. Archives of Psychology, 1932, 140.

Mager, Robert F. Developing Attitude Toward Learning. Belmont, CA: Fearon Publishers, Inc., 1976.

Mann, L. The Effects of Emotional Role Playing on Smoking Attitudes and Behavior. Journal of Experimental Social Psychology, 1967, 3.

Mannin, Ethel. Women and the Revolution. New York: E. P. Dutton and Co., Inc., 1939.

Mason, Francis K. Battle Over Britain. Garden City, N.Y.: Doubleday and Co., 1969.

Massey, Mary Elizabeth. Bonnet Brigades. New York: Alfred A. Knopf, 1966.

McGuire, W. J. "The Current Status of Cognitive Consistency Theories." In S. F. Feldman (Ed.), Cognitive Consistency. New York: Academic Press, 1966.

\_\_\_\_\_. "Theory-Oriented Research in Natural Settings." In Sherif and Sherif (Eds.), Interdisciplinary Relationships in the Social Sciences. Chicago: Aldine, 1968.

\_\_\_\_\_. "The Nature of Attitudes and Attitude Change." In Gardner Lindze and Elliott Aronson (Eds.), The Handbook of Social Psychology. Cambridge, MA: Addison-Wesley, 1969.

Montagu, Ashley. The Natural Superiority of Women. New York: Macmillan Company, 1953.

Moskos, Charles C. "Minority Groups in Military Organization." In Roger Little (Ed.), Handbook of Military Institutions. Beverly Hills: Sage Publications 1973.

O'Ballance, Edgar. The Red Army. New York: Praeger, 1964.

\_\_\_\_\_. The Red Army of China: A Short History. New York: Praeger, 1963.

Oppenheim, Abraham N. Questionnaire Design and Attitude Measurement. New York: Basic Books, Inc., 1966.

Rosenberg, M. J., and C. I. Hovland (Eds.). Attitude Organization and Change. New Haven, Connecticut: Yale University Press, 1960.

Rosnow, R. L., and E. J. Robinson. Experiments in Persuasion. New York: Academic Press, 1967.

Samford, Doris. Ruffles and Drums. Boulder, CO: Pruett Press, 1966.

Scott, Christopher. "Research on Mail Surveys," Journal of the Royal Statistical Society 24, Ser. A (1961).

Treadwell, Mattie E. United States Army in World War II, Special Studies, The Women Army Corps, Part 2 of Volume 8, (Washington, D.C., Department of the Army, Office of the Chief of Military History, 1954).

#### ARTICLES AND PERIODICALS

Aber, Ed. "Sporting Chance." Soldiers, February 1975, pp. 35-37.

Aber, Edward. "Women in Army Jobs." Soldiers, July 1974, pp. 22-25.

Alexander, Raymonde. "This Is The Army, Miss Jones." Atlanta Constitution, 8 April 1977, p. 9B.

Anonymous. "Women in Combat?????" DA Spotlight, 148 (2 August 1976), pp. 1-3.

Arbogast, Kate A. "Women in the Armed Forces: A Rediscovered Resource." Military Review, November 1973, pp. 9-19.

"Army Tests Women in Combat As Part of NATO Fall Exercise." Kansas City Times, 15 September 1977, p. 16C.

"Army Will Train Women on Rifles: They Must Qualify After 30 June on the M-16." New York Times, 25 March 1975, p. 15, col. 1.

"Army Women Still Under Study." Kansas City Times, 30 August 1977.

Atkins, A. L., Deaux, K. K., and Bieri, J. "Latitude of Acceptance and Attitude Change: Empirical Evidence for a Reformulation." Journal of Personality and Social Psychology, 1967, 6, pp. 47-54.

Bailey, Mildred C. "Women in the Army." Commanders Digest. 10 July 1975, pp. 4-7.

\_\_\_\_\_. "Army Women and a Decade of Progress." Army, October 1974, pp. 85-87.

Bailey, Tom. "Women on the Go." Army Digest, February 1971, pp. 38-43.

Bennett, Amanda. "Pay and Security Cause More Women To Join the Army." Wall Street Journal, 18 December 1974, p. 1.

Berger, J. B., B. Cohen, and M. Zelditch. "Status Characteristics and Social Interaction." American Sociological Review, 1972, p. 37.

Berry, Robert W. "On the Impact of Women in Service Academies." Washington Post, 18 June 1975, p. A19.

Borger, Gloria. "Women Plebes Assess Year of Bad Jokes, Acceptance." Washington Star, 31 May 1977, p. 1.

Broverman, I., S. Vogel, D. Broverman, F. Clarkson, and P. Rosenkranz. "Sex-Role Stereotypes: A Current Appraisal." Journal of Social Issues, 1972, 28.

Bryant, E. C., H.C. Hartley, and R. J. Jessen. "Design and Estimation in Two-Way Stratification," Journal of the American Association, 55, (1960).

Buchanan, Patrick J. "Putting Women in Combat Roles 'Ludicrous!'" Omaha World Herald, 18 February 1977, p. 26.

Burnett, Douglas R. "The Sexually-Integrated Warship Can't Be The Most Combat-Effective Warship." United States Naval Institute Proceedings, April 1977.

"Capt R. R. Tyler is 1st Woman To Command NATO Military Unit." New York Times, 7 March 1973, p. 49, col. 2.

Cochran, W. G. "Relative Accuracy of Systematic and Stratified Random Sample for a Certain Class of Populations," Annals of Mathematical Statistics, 17 (1946).

Corddry, Charles W. "Women May Yet Save All-Volunteer Forces." Baltimore Sun, 23 June 1977, p. 15.

Culbertson, F. M. "The Modification of an Emotionally Held Attitude Through Role Playing." Journal of Abnormal and Social Psychology, 1957, 54.

Davis, J. W. "Let the Women Do It." Military Review, November 1951, pp. 25-32.

Dean, Katie. "Women Cadets Measure Up To Male Classmates." Denver Post, 31 May 1977, p. 15.

Deaux, K., and T. Emswiller. "Explanations of Successful Performance on Six-Linked Tasks: What is Skill for the Male is Luck for the Female." Journal of Personality and Social Psychology, 1974, 29.

Deaux, K. Women in Management: Casual Explanation of Performance. Presented at symposium on "The Professional Woman," American Psychological Association Annual Meeting, New Orleans, 1974.

Dobkin, Robert A. "Army Plans Larger Role for Women (Almost Any Type of Job, Except Combat)." Washington Post, 8 August 1972, p. 10, col. 8

Downey, Fairfax. "Women in War." Army, July 1975, pp. 20-25.

Eagly, A. H. "Involvement as a Determinant of Response to Favorable and Unfavorable Information." Journal of Personality and Social Psychology, Monogram Supplement, 1967.

Feron, James. "West Point Will Revise Its Policies on Finding and Training Women." New York Times, 17 April 1977, p. 1.

Freedman, J. "Involvement, Discrepancy and Change." Journal of Abnormal and Social Psychology, 1964, 69.

Gates, Contributing Editor. "Widening Horizons for Air Force Women," Air Force Magazine, January 1978, pp. 32-36.

Goldman, Nancy. "Changing Role of Women in the Armed Forces," American Journal of Sociology 78 (January 1973), pp. 892-911.

Goldman, Nancy. "The Utilization of Women in the Military." The Annals, Vol 406 (March).

Goldman, Nancy L. "Women in NATO Armed Forces." Military Review, October 1974, pp. 72-82.

Golightly, C., and D. Byrne. "Attitude Statements as Positive and Negative Reinforcements," Science, 2964, 146.

Guidry, Vernon A., Jr. "Pentagon SOS: Women, Sign Up." Washington Star, 26 June 1977, p. 2.

Gurin, P., G. Gurin, R. Lao, and M. Beattie. "Internal-External Control in the Motivational Dynamics of Negro Youth, Journal of Social Issues, 1969.

Halloran, Barney. "Women in the Army: Where Have They Been? Where Are They Going?" Soldiers, May 1973, pp. 4-17.

Hargreaves, Reginald. "The Eternal Problem." Marine Corps Gazette, April 1973, pp. 42-48.

\_\_\_\_\_. "The Intruders." Military Review, December 1964, pp. 83-91.

Holm, Jeanne and Elizabeth Hoisington (Published Interview.) "Should Women Fight in War: Pro and Con," U.S. News and World Report, Inc, 13 February 1978, pp. 53-54 (Magazine interviews with Major General Jeanne Holm, U.S. Air Force (Retired); and Brigadier General Elizabeth Hoisington, U.S. Army (Retired)).

Hunter, Edna J. and Carol B. Million. "Women in a Changing Military." United States Naval Institute Proceedings, July 1977.

Inske, C. A. "Verbal Reinforcement of Attitudes." Journal of Personality and Social Psychology, 1965, pp. 2.

Janis, I. L. and C. N. Rausch. "Selective Interest in Communications That Could Arouse Decisional Conflict: A Field Study of Participants in the Draft-Resistance Movement." Journal of Personality and Social Psychology, 1970, 14, pp. 46-54.

King, Grace M. "Our Women Troops: Are They a Wasted Resource?" Army, June 1975, pp. 8-9.

Levathes, Kiki. "Was West Point Too Rigorous For Its First Female Dropouts?" New York News, 21 February 1977, p. 30.

Mason, K. and L. Bumpass. "U.S. Women's Sex-Role Ideology, 1970." American Journal of Sociology, 1975, p. 80.

McClintock, C. "Personality Syndromes and Attitude Change." Journal of Personality, 1958, 26, pp. 479-493.

McGuire, W. J. "Direct and Indirect Persuasive Effects of Dissonance Producing Messages." Journal of Abnormal and Social Psychology, 1960, p. 60.

McGuire, W. J. "Cognitive Consistency and Attitude Change." Journal of Abnormal and Social Psychology, 1960, p. 60.

McGuire, W. J. and S. Millman. "Anticipatory Belief Lowering Following Forewarning of a Persuasive Attack." Journal of Personality and Social Psychology, 1965, p. 2.

Moskos, Charles C. "The Emergent Army." Parameters, The Journal of the U.S. Army War College, Vol IV, No. 1, 1974, pp. 17-30.

Newcombe, Harold. "Cochran's Convent." Airman, May 1977.

Palme, Olaf. "The Emancipation of Man." Journal of Social Issues, 28 (1972), pp. 237-46.

Prina, L. Edgar. "Navy Secretary Supports Warship Duty for Women." San Diego Union, 29 June 1977.

Quester, George H. "Women in Combat." International Security, April 1977, Vol 4.

Rogers, Bernard W. "Toward a Professional Army," Soldiers, August 1973, pp. 5-16.

Rubin, I. M. "Increased Self-Acceptance: A Means of Reducing Prejudice." Journal of Personality and Social Psychology, 1967, 5, 233-238.

Seward, H., and W. Larson. "Adolescent Concepts of Social Sex-Roles in the United States and the Two Germanies." Human Development, 1968, p. 11.

"Sex Barriers: It's Falling Fast in the Military." U.S. News & World Report, 28 June 1976, pp.

Silverman, I. "Self-Esteem and Differential Responsiveness to Success and Failure." Journal of Abnormal and Social Psychology, 1964.

"Simple Fact: Israeli Women Don't Fight." Army Reservist, January-February 1975, pp. 13-15.

"'So Far, So Good': A Report Card on Coed Military Academies." U.S. News and World Report, 11 July 1977, p. 26.

Stewart, Lloyd. "AF General Claims Future Women Officers a Boon." Fort Worth Star-Telegram, 18 April 1977, p. 1C.

Stokes, William M. III. "Power Projection 1990: The Role of US Military Power." Military Review, May 1975.

"Studies Under Way: Army To Consider Opening Closed Combat Units to Women." Army Times, 26 September 1977, p. 21.

Sugar, J. "An Analysis of the Relationship of Attitudes and Behavior." NSF Undergraduate Research Participation. Final Report, University of Illinois, 1967.

Tavris, C. "Who Likes Women's Liberation--and Why: The Case of the Unliberated Liberals." Journal of Social Issues, 1973, p. 29.

"Tomorrow," U.S. News and World Report, November 28, 1977.

Wacker, Barbara, "Women Have Always Been Fighters." Armed Forces Journal International, June 1974, pp. 24-25.

Vitters, Alan G. and Kinzer, Nora Scott, "Women at West Point: Change Within Tradition." Military Review, Vol LVIII, No. 4, April 1978.

Warren, Virginia Lee. "The WAC: Born in Time of Crisis and Still Flourishing." New York Times, 7 May 1972, p. 83, col. 1.

Weinraub, Barnard. "Pentagon Criticized on Jobs for Women." New York Times, 25 July 1977, p. 9.

Werrell, Kenneth P., "Should Women Be Permitted In Combat?" Air University Review, Vol XXVIII, No. 5 July-August 1977, p. 66.

"What About Women's Roles?" Army Reservist, January-February 1975, pp. 1-12.

Wilson, George C. "Army Chief Eyes Drafting of Women." Washington Post, 7 April 1977, p. 2.

Wilson, George C. "Women Seek Equality in Combat." Washington Post, 16 June 1975, p. A1.

"Women in Defense." Commanders Digest, 10 July 1975. (Entire Issue.)

"Women in Field With Men: 'Sexist' Attitudes of Men Big Gripe of Female GIs." Kansas City Star, 18 September 1977, p. 31A.

"Women in ROTC." Commanders Digest, 25 April 1974, p. 7.

"Women in the Military Services." Commanders Digest, 19 April 1973, pp. 7-8.

Woster, Carol. "The Women's Army Corps: The Past Is Their Prologue." Army, May 1974, pp. 21-27.

Young, Barbara. "Women Cadets Ponder Whether the Military Life is Really Worth It." Detroit News, 5 June 1977, p. 3.

Yuen-gi Yea. "Zenia's Dream." Airman, February 1975, pp. 14-16.

GOVERNMENT DOCUMENTS

Department of Defense. Office of the Assistant Secretary of Defense (Manpower Reserve Affairs and Logistics (DASD-MRA&L)). Background Study: Use of Women in the Military. May 1977.

Office of the Assistant Secretary of Defense (Manpower and Reserve Affairs), Central All-Volunteer Force Task Force. "Utilization of Military Women (A Report of Increased Utilization of Military Women, FY 1973-1977)." December 1972. (DDC Doc. AD 764 510.)

Department of the Army. Comptroller of the Army. "Cost Analysis." (Study conducted September 1977 through March 1978).

Army Regulation 611-201, Enlisted Career Management Fields and Military Occupational Specialties, Change 9. 2 January 1978.

Message, 261510 January 1978. "Increased Female Accessions."

Message, DAPE-MPE. 032227 March 1978. "Rogers Sends. Women in the Army."

Office of the Deputy Chief of Staff for Personnel. "Redefinition of Direct Combat Role." (Current action.)

Office of the Deputy Chief of Staff for Personnel. "Comparative Data Collection Effort." (Study conducted July 1977 through March 1978.)

Office of the Deputy Chief of Staff for Personnel. "Women in the Army Study." (Study conducted January 1976 through December 1976.)

"MILPERCEN Study, Utilization of Women in the Army--INFORMATION MEMORANDUM," (DAPE-MPE-CS).

U.S. Army Military Personnel Center. "Attrition Analysis." (Study conducted July 1977 through March 1978.)

\_\_\_\_\_. "MILPERCEN Study." (Study conducted February 1977 through September 1977.)

Generalmajor Hellmuth Reinhardt, Personnel and Administration. Project 2b. Part VI: German Women in War Service During World War II, MS # P-027, Koenigstein, 16 May 1949. Translated and edited by H. Heitman. Headquarters, European Command, Historical Division APO 403, 15 November 1949 - Daniel T. Murphy, MAJ, INF, Chief, Operational History (German Branch).

Great Britain. Ministry of Home Security. Front Line, 1940-41: The Official Story of the Civil Defense of Britain. London: His Majesty's Stationery Office, 1942.

Great Britain. Ministry of Information. Roof Over Britain: The Official Story of Britain's Anti-Aircraft Defences, 1939-1942. London: His Majesty's Stationery Office, 1943.

Israel: A report on Women in the Israeli Defense Force, Chen, Tel Aviv, 1969.

U.S. Congress. 91 Stat, Sec 3.3. House. Title III-Active Forces. Department of Defense Appropriation Authorization Act, 1978. Pub. L. 95-79, 95th Cong., 2d sess., 1977. H.R. 5970.

U.S. Congress. Senate. A Bill To Eliminate Discrimination Against Female Members of the Armed Forces of the United States by Expanding the Job Classifications to Which Female Members May Be Assigned. S. 1628. 95th Cong., 1st sess., 1977.

U.S. Congress. Senate. "More Women Needed in All-Volunteer Force." Congressional Record 123, No. 147 (21 September 1977): S 15305.

U.S. Congress. Senate. "Military Procurement Authorizations, 1978." Congressional Record 123, No. 84 (17 May 1977): S 7777-S 7831.

U.S. Congress. Senate. Committee on Armed Services. Fiscal Year 1978 Authorization for Military Procurement, Research and Development, and Active Duty, Selected Reserve and Civilian Personnel Strengths. Hearings (25 January and 24 February) on Part 1, Authorizations, of S. 1210, 95th Cong., 1st sess., 1977.

U.S. President's Commission on the Status of Women, 1963. American Women - Report of the President's Commission on the Status of Women. 1963.

U.S. Army Institute for Environmental Medicine. "Physical Strength and Performance Standards." (Study conducted March 1976 through July 1978.)

U.S. Army Research Institute for the Behavioral and Social Sciences. "REFORGER 77 (REFWAC 77)." Study conducted August 1977 through November 1977.)

\_\_\_\_\_. "MAX WAC Test." (Study conducted March 1976 through 1 October 1977.)

U.S. Army Training and Doctrine Command. "Basic Initial Entry Test." (Study conducted 17 September 1976 through 11 November 1976.)

\_\_\_\_\_. "Women Content in Units." (Study conducted December 1974 through April 1975.)

U.S. Women's Army Corps. "Survey of the Women's Army Corps As of 30 November 1967." n.d. (USAWC Library Doc. UA 565 W6A2 1967.)

U.S. Women's Army Corps School. Program of Instruction for WAC Officer Orientation/Officer Candidate Course. 14 December 1972, with minor revisions 1 April 1973. USAWC Library Doc. UA 565/W6/Z8/POI/1973.)

Women in the Army Study Group. "The Final Report of the Women in the Army Study Group." 1 December 1976. (USAWC Library Doc. UA 565 W6W6.)

Carol H. Fuller, "The role of women in the Navy: A study of attitudes and scale development," Washington, D.C.: Navy Personnel Research and Development Laboratory, June 1973.

Churchill, E., Churchill, T., McConville, J. T., White, R. M., Anthropometry of Women of the U.S. Army-- 1977, Report No. 2 - The Basic Univariate Statistics, Technical Report Natick/TR-77/024, U.S. Army Natick Research and Development Command, Natick, Massachusetts, 1977.

Laubach, Loyd L., McConville, John T., Churchill, Edmund, Webb Associates, White, Art M., U.S. Army Natick Research and Development Command, "Anthropometry of Women of the U.S. Army--1977, Report No. 1 - Methodology and Survey Plan, Technical Report, 1977.

Proxmire, William. "Opening Statement (Before the Subcommittee on Economy and Priorities in Government," (1 September 1977).

Priest, Robert F. and others, Women Cadets at the USMA (Paper delivered at the 72nd Annual Meeting of the American Sociological Association, Chicago, Illinois, September 9, 1977; Office of the Director of Institutional Research and Office of Military Leadership, Differences Between Characteristics of Men and Women New Cadets--Class of 1980 (West Point, New York: USMA, 1977); Office of the Director of Institutional Research, Cadet Attitudes Toward the Admission of Women to West Point (West Point, New York: USMA 1976); Office of the Director of Institutional Research, Analysis of Spontaneous Cadet Comments on the Admission of Women (West Point, New York: USMA, 1976); Office of the Director of Institutional Research, Cadet Attitudes Toward Women--1975 (West Point, New York: USMA, 1976).

Priest, Robert F. and others, "Differences Between the Characteristics of Men and Women New Cadets, 1980," West Point, Office of the Director of Institutional Research, Report #77-010, March 1977; R.F. Priest and others, U.S. Military Academy, "Women Cadets at the United States Military Academy," Paper delivered at the 72nd Annual Meeting of the American Sociological Association, Chicago, Illinois, September 9, 1977.

Priest, Robert F., Office of the Director of Institutional Research, A Comparison of Faculty and Cadet Attitudes Toward Women (West Point, New York: USMA, 1976); Office of the Director of Institutional Research, Cadet Perception of Inequitable Treatment During Cadet Basic Training 1976 (West Point, New York: USMA, 1977); Office of the Director of Institutional Research, The Intergroup Contact Hypothesis As Applied to Women At West Point (West

Priest, Robert F., (Continued)

Point, New York: USMA, 1977); Office of the Director of Institutional Research, New Cadets and Other College Freshmen Class of 1980 (West Point, NY: USMA, 1977); Office of the Director of Institutional Research, The First Class Questionnaire, Class of 1977 (West Point, New York: USMA, 1977); (West Point, New York: USMA, 1977); Office of the Director of Institutional Research, Characteristics of the Class of 1980 (West Point, New York: USMA 1976).

Priest, Robert F. Cadet Attitudes Toward Women-1975, Report No. 4F1 00-76-015, Project No. 211AB, Office of the Director of Institutional Research, United States Military Academy, West Point, New York, May 1976.

Priest, Robert F., Cadet Perceptions of Inequitable Treatment During Cadet Basic Training 1976, USMA Report No. 77-012, West Point, N.Y., March 1977.

Shalala, Samuel R. "A Study of Ethnocentrism Among White Professional Military Officers" (master's thesis, U.S. Army Command and General Staff College, 1969).

National Center for Health Statistics, 1975.

Savell, Joel M., and Collins, Barry, "Soldiers' Attribution of Contemporary vs Traditional Sex-Role Attitudes to Themselves and to Others", U.S. Army Research Institute for the Behavioral and Social Sciences, July 1975.

Savell, J.M., and Woelfel, J.C., "A Seven-item Scale to Measure Sex-Role Attitudes in the Army," Unpublished manuscript, Army Research Institute, January 1977; "Studies Under Way: Army To Consider Opening Close Combat Units to Women," Army Times, September 26, 1977.

#### OTHER SOURCES

Arbogast, Kate A. "Procurement of Women for the Armed Forces: An Analysis of Occupational Choice." (USAWC Library Doc. UA 565 W6A72).

Batts, LTC John H., AGC; COL R. Burr, FA; COL Richard F. Fisher, IN; COL Gary G. Mahan, ADA; Commander John E. Paganelli, USN; COL David E. Scales, FA; LTC Harold E. Weiler, AGC; Robert S. Nichols; "The Roles of Women in the Army and Their Impact on Military Operations and Organizations," USAWC Military Research Program Paper (Pennsylvania: U.S. Army War College, Carlisle Barracks, 23 May 1975) (USAWC Library Doc. 75334.R).

Collins, Barry, and Joel M. Savell. "Soldiers' Attribution of Contemporary vs Traditional Sex Role Attitudes to Themselves and to Others." ARI Research Memorandum 75-1. Contemporary Research, Inc., and U.S. Army Research Institute for Behavioral and Social Sciences, n.d.

Dickerson, Verna J. "The Role of Women in the Defense Force of Israel." Individual research project, U.S. Army War College, 21 May 1974.

Follett, George L. "Lady Soldiers in the 1970's." Student essay, U.S. Army War College, 28 December 1974.

Goodman, Jill Laurie, "Testimony . . . Before the Subcommittee on Priorities and Economy in Government, Joint Economic Committee, on the Role of Women in the Military." 1 September 1977.

Harrison, Major General Benjamin L. and Major Theodore J. Crackel. Review of Education and Training of Officers Team. "Officer Education in the 80's and 90's." (Unpublished Report, Washington, D.C.; Headquarters, Department of the Army, 29 March 1978), p. 4.

Hinton, Edith M. "Utilization of WAC Personnel in TDA and TOE Units: A Monograph." Research paper, U.S. Army War College, 16 February 1972.

Holm, Jeanne M. "Statement . . . Before Subcommittee on Priorities and Economy in Government of the Joint Economic Committee: The Role of Women in the Military." 1 September 1977.

King, Grace M. "Male and Female Attitudes Toward the Role of Women in National Security." 28 March 1973. (USAWC Library Doc, UA 565 W6K5.)

Kinzer, Nora Scott, "Historical and Cross-Cultural Perspectives on Women in Combat." U.S. Army Research Institute, 1976.

Lanigan, J.D., D.W. Grissmer, and L.D. Koenig. "An Analysis of Army Female Accessions." Report OAD-CR-43. Prepared for Department of the Army under Contract DAHC19-69-C-0017. McLean, VA: General Research Corporation, Operations Analysis Division, July 1974.

Leibst, Mitzi D. "Women in the Soviet Armed Forces (U)." Doc. DDI-1100-109-76. n.p.: Directorate for Intelligence (Research Center), Soviet/Warsaw Pact Division, Ground Forces/MBFR Branch, Tactics and Organization Section, February 1976.

Maxwell, Jack C. "The Role of the Female in Today's Army Reserve Under the Civilian Acquired Skills Program." Student Project 75801, 18 October 1974. (USAWX Library Document.)

McClanahan, Donald D. "Women in the Reserve Components: What Are the Real Limits?" 19 June 1975. (USAWC Library Doc. 57328.R1)

Parr, Carol C. "Testimony . . . Before the Subcommittee on Priorities and Economy in Government of the Joint Economic Committee Concerning Women in the Military, September 1, 1977." Washington: National Coalition for Women in Defense, n.d.

Triandis, H. C., M. Fishbein, E. Hall, A. V. Shanmugam, Y. Tanaka, Affect and behavioral intentions, Modern trends of psychology. Papers in honor of Professor Kuppuswamy. Bombay: Manaktala and Sons, 1967.

Werrell, Kenneth P. Air University Review, "Should  
Women Be Permitted in Combat?", July - August  
1977.

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